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Paleoindian and Early Archaic Hunter-Gatherer Landscape Use: A Case Study from the Brier Creek Drainage in Burke County, Georgia

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by

Quinn Connally

Under the Direction of Jeffrey Glover, PhD

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of

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ABSTRACT

Artifact collections in museum repositories and those held by private individuals are numerous. Often these collections are analyzed and then reshelved by curators. In the case of private collections, the artifacts are assembled through purchase, avocational field work, or by hobbyists and can have limited or provenience. Despite this, these collections are valuable to current and future scholarship in archaeology. In this thesis I investigate and summarize three different legacy collections and groups of data that have limited and disparate information known about them yet were all sourced from the same general location of Burke County, Georgia. Each collection contains artifacts dating to the Paleoindian and Early Archaic periods (13,400-8,900 ca. BP). By investigating these artifacts and the details of their procurement locations in the context of existing theoretical models of hunter-gatherer mobility strategies, I can better contextualize Burke County, Georgia's place in the larger Paleoindian and Early Archaic Southeast.

INDEX WORDS: Paleoindian Period, Early Archaic Period, Hunter-gatherers, Staging Area Model, Younger Dryas Chronozone, Allendale-Brier Creek Clovis Complex, Savannah River Valley, Di-Lane Plantation, Roland Steiner, Theriault Site, Gordon Midgette

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DEDICATION

For Casey, Rivers, and Eli.

ACKNOWLEDGEMENTS

I have to first recognize God and my faith in Jesus Christ for life and the opportunity to embark on this endeavor in the first place. I also want to thank my wife and children, Casey, Rivers, and Eli for their patience in putting up with me writing this and toll it took on my time and availability (and attitude!). I will forever be grateful to you three and will hopefully make it up to you in the forthcoming years. Beyond that I owe a lot of people a debt that I probably cannot ever repay. My advisor, Jeffery Glover, has dedicated so much time, on and off duty as a professor and advisor, that it defies calculation. Dr. Glover has consistently brought ideas and new directions of thinking to my attention. He also helped me make connections with knowledgeable people that started important conversations and eventually became the genesis of this thesis. I have also had the pleasure of taking several classes with both Nicola Sharratt and Joshua Kwoka, my committee members and professors at Georgia State. Without critical knowledge taken from their classes I wouldn't have the framework to start my thesis work.

I also have a person on my committee that is not on the staff of Georgia State, Dr. K.C. Jones. Without her this document would simply not have been written. Her expertise in the subject matter was critical in guiding my thoughts and the essence of the thesis itself. I found myself constantly realizing that the more I delved into the subject matter the more unanswered questions I had. K.C. was always ready and available in those situations and quickly and effectively helped me navigate in the most intimidating unknowns. She did so without hand-holding and gave me just enough to realize some of the most important analytical threads contained herein. Truly a great person and an excellent teacher. K.C. also put me in contact with Dan Elliot, whose work on Roland Steiner's background and collection, in collaboration

with K.C. and Jerald Ledbetter, was graciously shared with me and instrumental in even beginning to research this topic.

Several others helped me out along the way. Carol Midgette was instrumental in bringing her late husband, Gordon Midgette's, work to light. Without the collection of artifacts and documentation she generously shared with me the topic of this thesis would be impossible to address. I have also reached out to several professionals in archaeology along the way and their advice has been critical in my work. Al Goodyear, the author of several critical works-cited herein, has been very helpful and generous with his knowledge of the Paleoindian and Early Archaic periods in the Southeast. Dr. Goodyear also referred me to Danny Greenway who was kind enough to let me into his home and corroborated the identification of most of the artifacts in the Midgette collection. I have often reached out to Scott Jones, archaeologist and primitive technologist, and he has aways been incredibly generous with his time and has offered encouragement and knowledge whenever I've asked. I would lastly like to thank my mom, Gena, my late father, Sam, and my brother, Rowan, for their supporting me pursuit of this endeavor. This support is mirrored by my extended family and has really helped me in times of doubt. I love you all and cannot thank you enough.

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1 INTRODUCTION

Collections of American archaeological material have become so numerous and extensive that it has made curation of these materials a difficult task for museums and similar repositories. Often, museums and other artifact aggregators find themselves with "orphaned" collections that are minimally documented or simply ignored (Friberg and Huvila 2019: 362). Private collections often contain large numbers of artifacts with a potential scope of provenance that could range from a single local homestead to thousands of sites located anywhere on the globe. These collections present myriad barriers to analysis. They can be amassed by purchase or trade, avocational field work by those considering themselves self-trained archaeologists, as well as by individuals who simply have a passion for history and hoarding rocks. There is also a generally less visible but equally important issue: the curation of information. The volume of literature that records and explains the vestiges of material culture that are housed in museum repositories, private collections, and produced by ongoing archaeological field work is expansive and ever-growing. Vetting, aggregating, and analyzing that level of information is a Sisyphean task. Thus, archaeological data must be broken down into manageable and specific increments in order to be understood for any potential larger context or meaning.

The purpose of this thesis is to do just that on a small, regionalized scale; specifically, the West Central Savannah River Valley of Georgia. I analyze three known, but under-studied, legacy collections which are all provenanced to Burke County, Georgia (Figure 1.1). Each collection was assembled under different circumstances and different timeframes which collectively span the course of approximately 100 years. Burke County has yielded a

disproportionate amount of Paleoindian period (13,200-11,700 cal BP) and Early Archaic period (11,700-8,900 cal BP) lithic material in comparison to other counties in Georgia (Paleoindian Database of the Americas 2010; Anderson et al. 2015; Anderson and Sassaman 2012). The Paleoindian Database of the Americas (PIDBA) website (www.PIDBA.utk.edu), which catalogs morphology and provenance information of projectile points from these time periods, cites Burke County as having 49 Clovis points, 65 various other Paleoindian period points and 141 Dalton and other Early Archaic period points which accounts for 12.2% of the total for these types for the state of Georgia (Paleoindian Database of the Americas 2010).

Of note is that these data are only what have been reported to PIDBA and should not be considered an accurate survey of all artifacts from these periods that have been found in the county. It must also be mentioned that the Steiner collection, one of the three analyzed herein and collected from a single site, skews the total data set and adds a disproportionate weight to Burke County's representation in the PIDBA catalog. Thus far, nobody has collectively analyzed and synthesized these data. In conducting this research, I take two applicable hunter-gatherer settlement models that analyze potential mobility and land-use strategies for the Paleoindian and Early Archaic periods and apply them to Burke County, Georgia by using the data from the three legacy collections. Then I aggregate these data into a realistic culture-historical narrative of this unique geographic location. Finally, I use this information to see how these results compare with archaeology's broader understanding of the Paleoindian and Early Archaic period occupations in the Southeast and current theoretical models of hunter-gatherer populations.

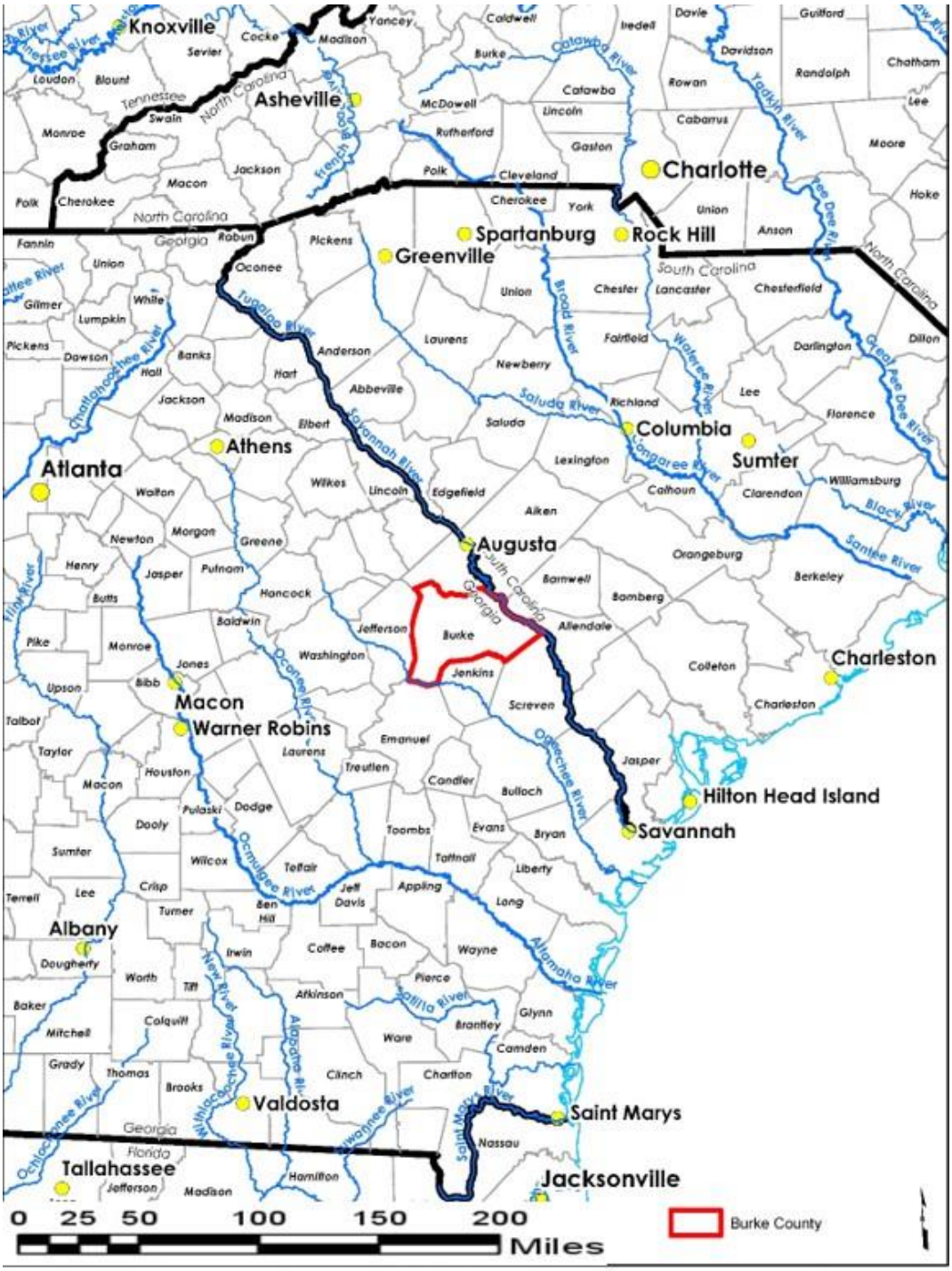


Figure 1-1 Location of Burke County, Georgia (ArcGIS 2023)

1.1 Utility of Legacy Collections in Current Archaeological Research

Legacy collections are defined as any archaeological remains collected and curated in the past that are still accessible in the present (St. Amand et al. 2020). These collections can prove very useful in studying current archaeological problems and bring to light new information, as they are generally under-analyzed (Thompson et al. 2019). Legacy collections act as archaeological site archives. Often these sites are destroyed and cannot provide any more archaeological data, therefore materials collected from those sites might be the only data available (St. Amand et al. 2020). Well-provenienced collections can be used in tandem with current site information or paleoenvironmental data to help recreate the landscape of the past and the lifeways of those who inhabited it. As technology advances, these collections can be revisited as many times as necessary to reevaluate the data they contain and perhaps draw new or different conclusions to current archaeological questions (Sullivan and Childs 2003).

1.2 General Background of the Collections

Three collections of artifacts from Burke County, Georgia inform this thesis. These collections were procured from three separate areas (Figure 1.2). One collection was part of a large, professional survey in the 1990s (Di-Lane Plantation), one was amassed over decades by a surgeon-turned-farmer in the late 19th century (Davis Plantation, or the Steiner site), and the final one is a partial collection from Gordon Midgette's graduate student excavations in the 1960s, whose data were never published (the Theriault or Waring site). Two of the collections, the Di-Lane Plantation and Steiner collections, are located relatively close to one another in the southwestern portion of the county. The Theriault site is in the southeastern portion of the

county, roughly 16 miles away from the other two. All three collections contain lithic material indicating site occupations from the Paleoindian to Mississippian periods, but only those materials dating to the Paleoindian and Early Archaic periods are analyzed in this thesis.

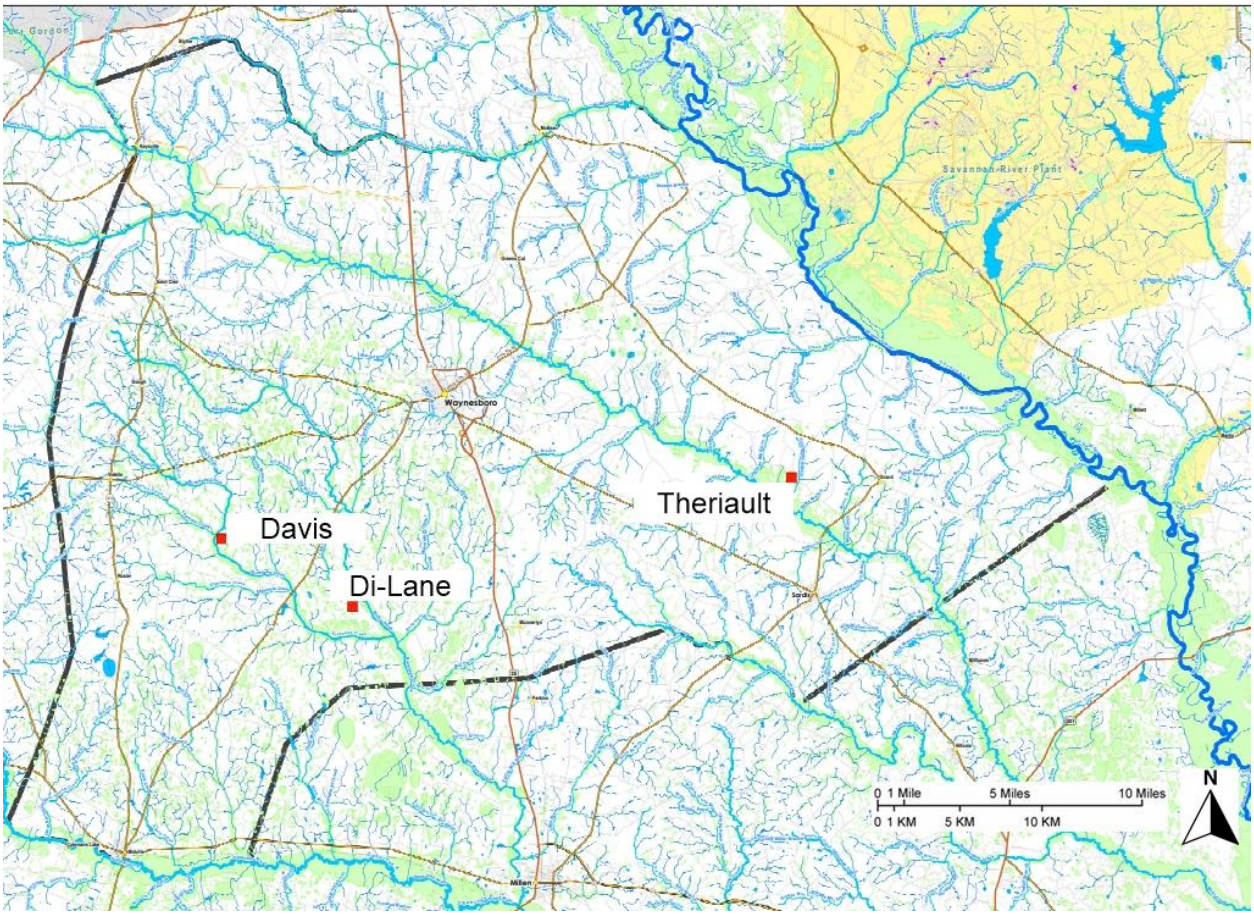


Figure 1-2 Burke County with the three collection procurement locations labeled (ArcGIS 2023)

1.3 General Background of the Paleoindian and Early Archaic Periods

The detailed study of the peopling of the Americas is beyond the scope of this thesis. This section provides general context for North American hunter-gatherers, who subsisted during the Terminal Pleistocene and Early Holocene. Archaeology refers to these two intervals

as the Paleoindian and Early Archaic periods. The portion of artifacts in the legacy collections studied herein reflect the tool kit used by the hunter-gatherers of these periods.

The dating of the initial arrival of humans into North and South America is constantly being revised and updated. One known factor in the peopling of the Americas, however, is that at some point there were one or more crossings over the ice-free region that connected the Asian continent with the North American continent on the geographic footprint of the current state of Alaska (O'Brien 2018). This land mass is known as Beringia. It is also posited that at some point a group or groups used the Pacific shoreline of North America to navigate down through the Pacific Northwest and eventually into South America at a time that predates the Beringian crossings (O'Brien 2018). Exactly where the colonizing populations that crossed Beringia inhabited it during their journey, how long they stayed there, and what specific route they took to access the North American continent can only be understood by studying remnants from various sites scattered across the Alaskan landscape.

The lowlands of the central region of Beringia, which is referred to as the land bridge or ice-free corridor, is a known former habitation of Asian colonists. It is believed these groups began to traverse the area up to 15,300 BP when the ice-free corridor allowed access after the Last Glacial Maximum (LGM) which occurred between 26,000-18,500 cal BP (Jones 2023; O'Brien 2018). It is also theorized that the arctic zone of Beringia, both eastern and western extents, were a refuge for these exploratory populations and the split between the lowland and Arctic groups represented an early, pre-LGM divergence of these populations from their shared Asian ancestors (Hoffecker et al. 2020). The Northwest Beringian Plain, located on the bare Eastern Siberian Arctic Shelf, was especially conducive to human occupation as this steppe-

tundra supported a variety of megafauna which in-and-of themselves produced most of the materials needed for survival (Hoffecker et al. 2020). These populations, at varying times, made their way south either along the coast or later through the split in the Laurentide and Cordilleran ice sheets, situated just above the US continental divide.

At some point the colonizing population began to consistently create fluted projectile points with various morphologies that served as the foundation of the Clovis technocomplex. It is believed this group or groups date to approximately 13,400 years cal BP and the technology rapidly spread across a new-found, thawed, and resource-rich environment (O'Brien 2018). Radiocarbon data from sites such as the Topper quarry (38AL23) in western South Carolina suggest a potential occupation from dates that exceed the oldest agreed upon timeframe of the currently held Clovis period. Topper corroborates similar dates such as those obtained from sites such as Monte Verde in Chile (Dillehay et al. 2015; Goodyear and Sain 2018).

Clovis technocultural signatures are found in various forms throughout the United States. Although there are regional morphological differences in this technology, there is enough evidence of a uniform basic design across the country as opposed to the former theories that the Clovis technocomplex was vastly different east and west of the Mississippi River (Morrow 2005). The field of genetics is working to unravel the mystery of the original pioneers of North American colonization as well, yet there are very few data sets available for study. Modern genetics and tests of the extremely rare Clovis remains, such as at the Anzick site in Park County, Montana are some of the only known assemblages (Waters et al. 2018). This is certainly a topic that will not be fully settled until a great deal more research is undertaken.

After the initial colonization of the Americas the climate became warmer and, geologically, the planet shifted into the Holocene Epoch. The hunter-gatherer groups of this period are referred to as having lived in the Early Archaic period. They represented the post-colonization populations and were more established in their general occupational areas. Early Archaic peoples still behaved as hunter-gatherers and maintained high levels of mobility in the Southeast.

1.4 Research Questions and Thesis Outline

This thesis addresses two research questions:

1-Can examining aggregated artifact and associated site data from multiple legacy collections and their procurement locations help determine mobility and settlement patterns of Paleoindian and Early Archaic period hunter-gatherers in the West Central Savannah River Valley?

2- How does the evidence of these mobility and settlement patterns match what one would expect to see given the framework of existing hunter-gatherer colonization, settlement, and mobility models?

This thesis is organized into six chapters. I start with a brief introduction and then, in Chapter 2, summarize the Paleoindian and Early Archaic periods in the Southeast and Burke County, Georgia's setting. In Chapter 3, I discuss the models that serve as the framework for analyzing the collections and sites themselves. Chapter 4 is an introduction to the collections' histories and data. Chapter 5 integrates the artifact and site data, and I compare them to the

expected results of the models. Chapter 6 summarizes the collective previous information detailed in the thesis, offers conclusions, and provides suggestions for further research directions.

2 CULTURAL AND NATURAL HISTORY

The cultural and natural history of the Terminal Pleistocene and Early Holocene in Burke County plays an important role in orienting the reader in time and space relative to the subject matter presented in this thesis. In this chapter I discuss the Paleoindian and Early Archaic period Southeast. I then describe the natural setting of Burke County, Georgia and highlight the rich natural resources present there that early groups of hunter-gatherers could have exploited.

2.1 Paleoindian and Early Archaic periods in the Southeast

The peopling of the Americas happened during the Terminal Pleistocene Epoch as explained above. As anatomically modern humans, we had our genesis and ascendancy over the last 300,000 years (Hublin et al. 2017). Thus, for most of our existence, humans have lived under the various ebbs and flows of predominantly glacial climate conditions. The Ice Age then waned, to quote Hemingway, “two ways. Gradually, then suddenly” (Hemingway 1926: 136). The slowly receding glacial masses abruptly accelerated and flooded the ocean with fresh water. During the period known as the Younger Dryas (ca. 12,890-11,700 cal BP) the climate went from gradually warming to stagnant cooling over the course of 1,100 years (Jones 2023: 56). The climate then began to warm and settle into a long period of stability, relative to the Younger Dryas, known as the Holocene Epoch ca. 11,500 cal BP (Jones 2023:15). Evidence can be seen in the archaeological record of the adaptations human groups developed to this changing environment across the globe. The Southeastern United States provides for an interesting case study to observe the variations in subsistence strategies, and material culture that supported them, between the individual groups that existed at the end of the Ice Age and those that came directly after. By doing so one can better understand the way in which climate

changes can influence hunter-gatherer groups' behaviors. In analyzing this specific geographic area, one can observe the changes local groups undertook to adapt to their new environment.

The landscape, flora, and fauna of the Terminal Pleistocene in the Southeastern United States were different from that of the Holocene. One of the most important considerations when examining the landscape of this transitional period is sea level. Sea levels in the Southeast during the LGM were 120 meters lower than during the Holocene (Halligan 2013: 61). The change in the water level had geographic implications. As the water rose, more and more land was covered as the shoreline receded inland. It is estimated that 25% of the total landmass of the Southeast was submerged during this time (Halligan 2013: 61). Rising sea levels of this magnitude also had implications for certain riparian areas. In proximity to coastal areas, aquifers were refilled and lakes and all forms of water courses from streams to rivers were inundated with newly available surface water. These rivers took the form of slow, warm meanders. These conditions also led to traditionally arid areas previously located inland being transformed into coastal swamps as well as similar areas with lower topography manifesting as nascent lakes (Halligan 2013: 62). Recently, using diatom data secured from the Page-Ladson site (8JE591) in Florida, researchers were able to conclude that the environment was extremely damp 15,100 cal BP, which suddenly changed to very dry conditions at the onset of the Younger Dryas and then to warmer, wetter conditions approximately 11,000 cal BP (Perrotti et al. 2020).

The climatic conditions of the Pleistocene created a floral footprint in the Southeast that is very different than it is today. The Coastal Plain during the Terminal Pleistocene saw various types of pine diminish as they were replaced by a variety of deciduous species. These species included several that are known to comprise current boreal forests and thus implies those same

conditions in the Southeast at this time (Delacourt and Delacourt 1985). This was driven substantially by the Polar Frontal Zone, a climactic region that separates warm, tropical air masses from colder, arctic areas having a southern extent down to the 33rd latitudinal parallel, whereas today it is located around the 60th latitudinal parallel (Delacourt and Delacourt 1985). As the more moderate climate of the Holocene slowly settled in, this species mix began to change in various iterations that reflected the steady retreat of the boreal forest environment to the north until current land-cover conditions stabilized across the landscape (LaMoreaux et al. 2009).

Another important consideration in analyzing the floral footprint of the Southeast is the transition zones between various biomes, known as ecotones. The most prominent of these is perhaps the Fall Line. The Fall Line is a transitional twenty-mile strip of land, measured north to south, that essentially bisects Georgia and runs along the extent of the eastern seaboard (Ambrose et al. 2013: 348). This zone separates two distinct physiographic and ecological regions, the Piedmont to the north and the Coastal Plain to the south. The steeper topography of the heavily-wooded Piedmont region transitions into the lower gradient terrain and sandy-soils of the Coastal Plain which is apparent in the steep downward trajectory of the Fall Line's watercourses. This causes numerous shoals and waterfalls which slice and erode the natural granite and crystalline clays that comprise the bedrock, thus the name "Fall" Line (Ambrose et al. 2013: 348). The importance of this transitional area for humans is that these two distinct regions offer different resources. Therefore, if you are situated between these areas, you have potentially up to twice as many resources available to you as you would if you committed to one physiographic region over the other. Thus, as the Pleistocene transitioned to the Holocene,

certain portions of the southeastern United States, such as the Fall Line region, presented a relatively bountiful environment for the hunter-gatherers of the time to develop various subsistence strategies and exploit the resources of these distinct biomes.

2.2 Setting and Natural History of Burke County

Burke County is located at the northernmost portion of Georgia's Coastal Plain, almost halfway up the state's eastern border, which is delineated by the Savannah River (Figure 2.1). Across the river in South Carolina, Burke County borders Aiken, Barnwell, and Allendale Counties from north to south, respectively. This geographic observation is important as these South Carolina counties also harbor a multitude of valuable sites relating to the temporal periods covered in this thesis.

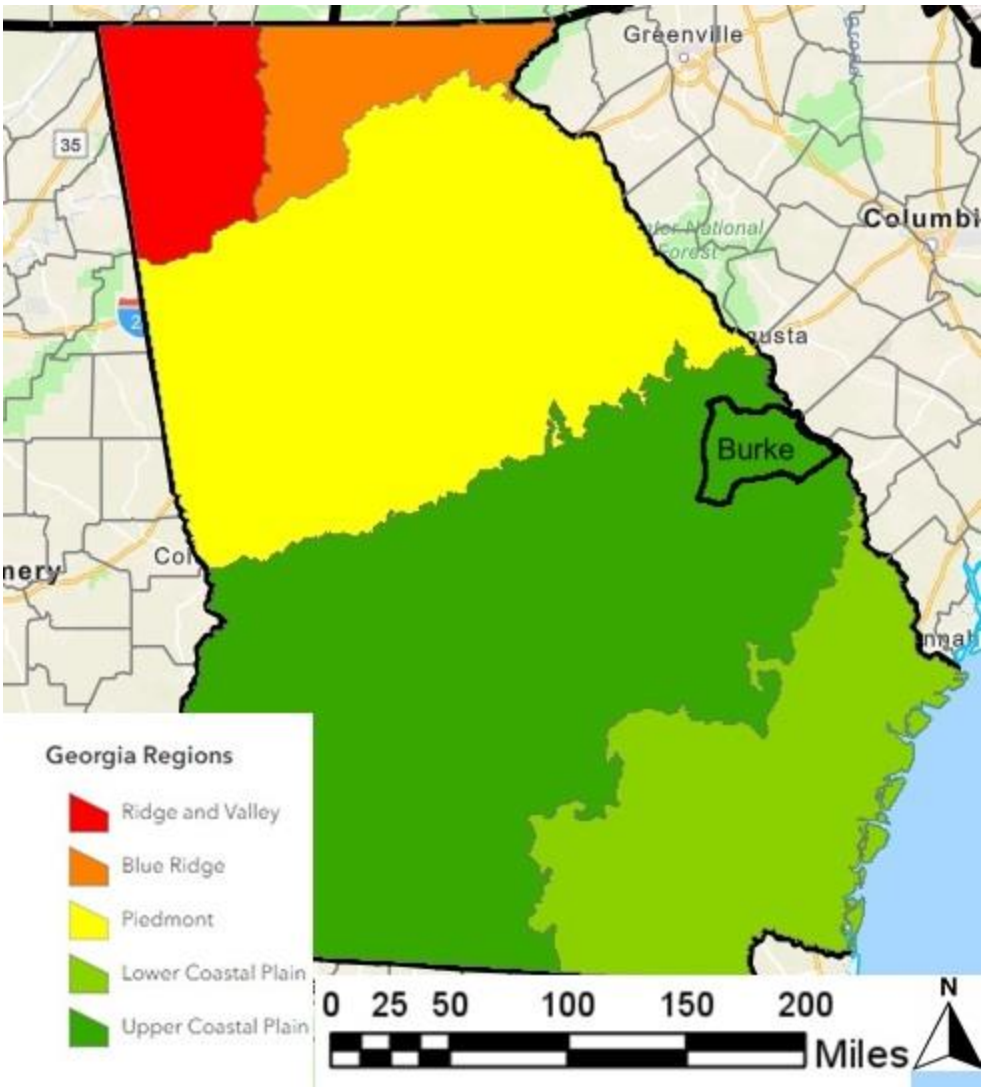


Figure 2-1 Burke County location relative to Georgia's physiographic regions (ArcGIS 2023)

At 827.04 square miles, Burke County is the second largest of Georgia's 159 counties (US Census 2020). Burke County was established contemporaneously with the colony of Georgia in in 1732, and was then called Halifax District. Halifax District went through various geographic and political iterations throughout the 1700s as the Euro-American colonization of North America was constantly driving west, reorganizing, and becoming more complex. Various portions were added to, and taken away from, other surrounding counties on several occasions until the current borders were established. The county was named for Edmund Burke, a

member of British parliament. In the 1700s, the Indigenous groups in the area were the Creek, Cherokee, and Catawba (among other, smaller nations) who lost their land incrementally through several treaties signed, almost invariably, in poor faith or through misrepresentation of the tribal leadership themselves (Cooksey 2004). As the European presence accelerated, farmers in particular were drawn to Burke County due to the quality of the arable, and thus potentially valuable, crop land. Of note is that Roland Steiner, whose aggregate artifacts from the county make up one of the collections studied herein, settled in the area for this very reason (Elliot 2010).

Burke County's location allows access to the two large and distinct ecotones outlined above and, thus, access to different resources which could be exploited to maximize diversity in diet and raw materials. It is located directly south of the Fall Line (Figure 2.1) and is also situated in a location that served as a floral transition zone, mentioned earlier. During the Terminal Pleistocene, vegetation existed in two distinct climatic zones delineated, generally, by the 33rd latitudinal parallel (Anderson 1996). This parallel and associated transition zone is considered here because it runs directly through the southern third of Burke County. Davis Plantation, Di-Lane Plantation, and the Theriault site are all located directly on this parallel (Figure 2.2). Di-Lane's overall border is outlined in black and the individual sites in red.

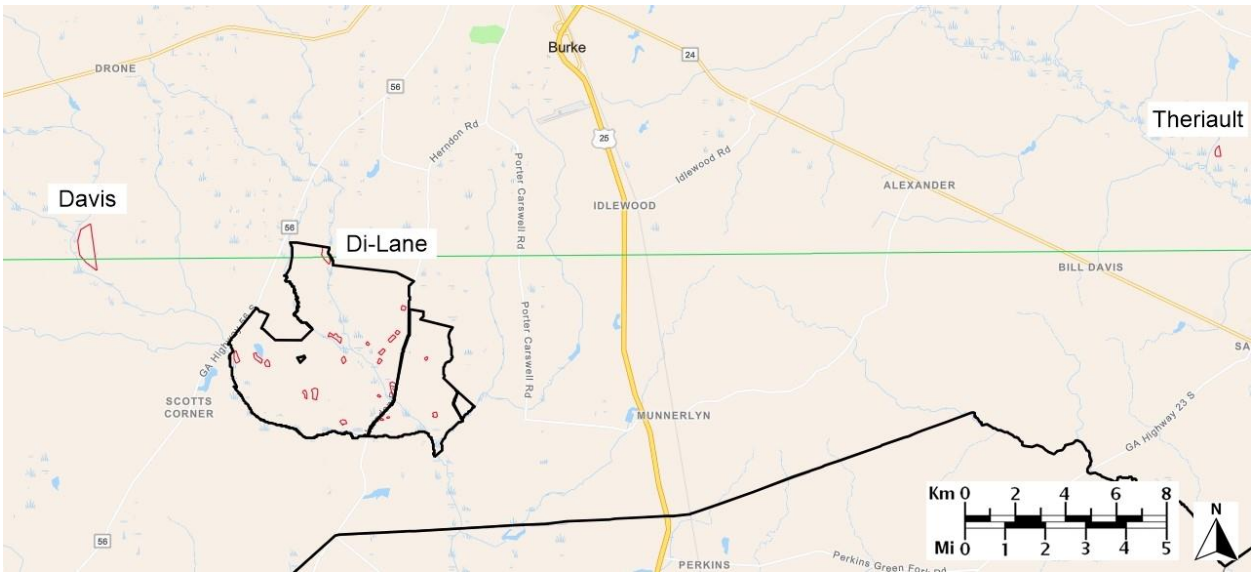


Figure 2-2 Southern Burke County in relation to the 33rd latitudinal parallel, indicated by the green line, with sites noted (ArcGIS 2023)

Burke County also has abundant and varied hydrology. The county is bordered by two rivers, the Savannah and the Ogeechee. Brier Creek bisects the county from the northwest to the southeast. Brier Creek is a class four water course essentially amounting to having the volume of a river itself (Horton 1945). The classification system is delineated by 12 separate units, 1-12, with volume increasing with the number (Horton 1945). For reference, a 12 is the Amazon River which has a maximum width of 7 miles in the dry season and 25 miles in the wet season, the latter making it wider than the mean breadth of Burke County itself. Beyond these three major watercourses, there are 32 sub-watersheds in the county, classified as Hydrologic Unit Codes (HUC), specifically “HUC-12s,” in this case; the most detailed level available (US Geological Survey). Within these HUCs are several smaller streams and tributaries. One important characteristic of watershed divisions is the corresponding presence of ground springs and stream heads. When surveyed, the ratio of these water features to known or discovered

archaeological sites is almost 1:1 (Brooks et al. 2010). Thus, Burke County has redundant, perennial flowing water courses that could supply a hunter-gatherer population with water and the biotic resources therein at virtually any spot in the county. This would allow these groups to indulge in almost any mobility or settlement pattern they wished. Figures 2-3-2-7 below collectively illustrate Burke County's hydrological resources and ecoregions.

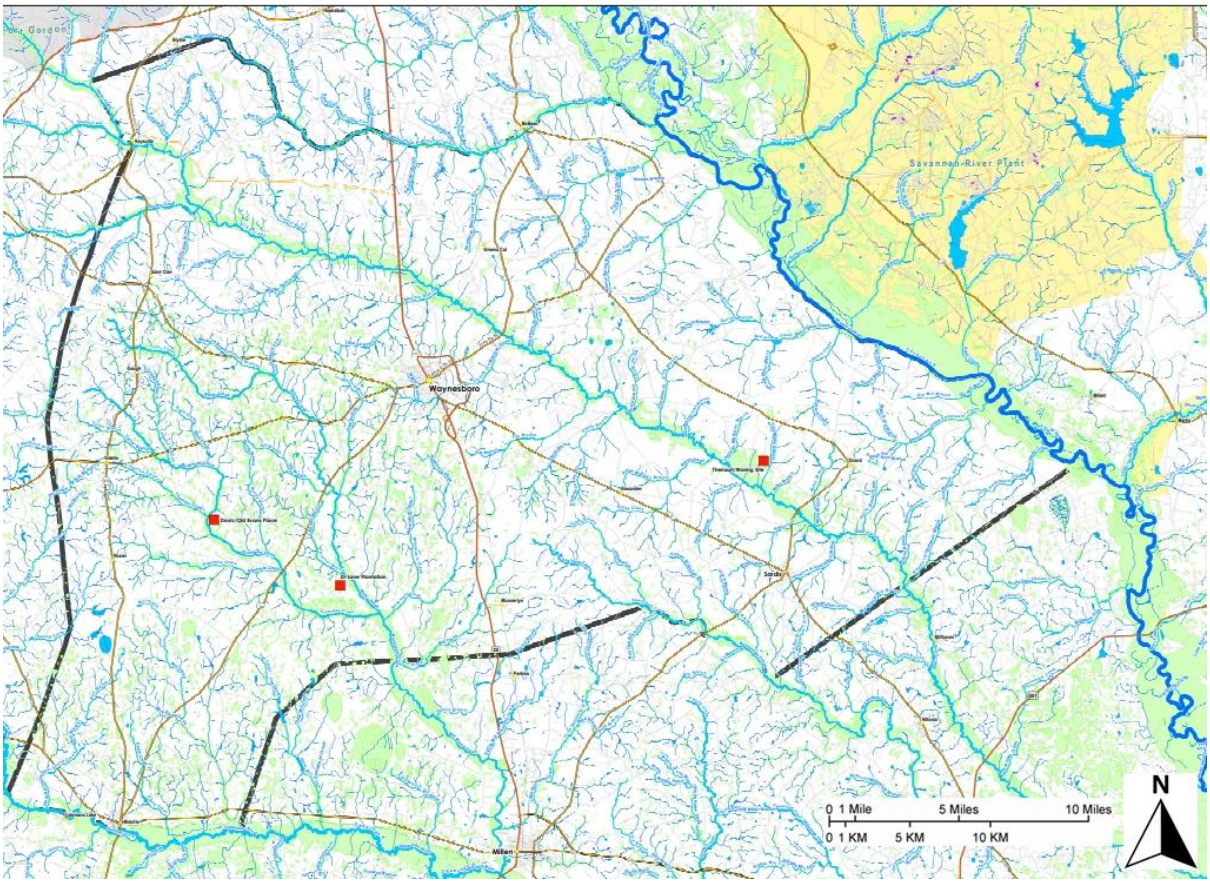


Figure 2-3 Burke County's overall hydrological footprint with the three sites noted (ArcGIS 2023)

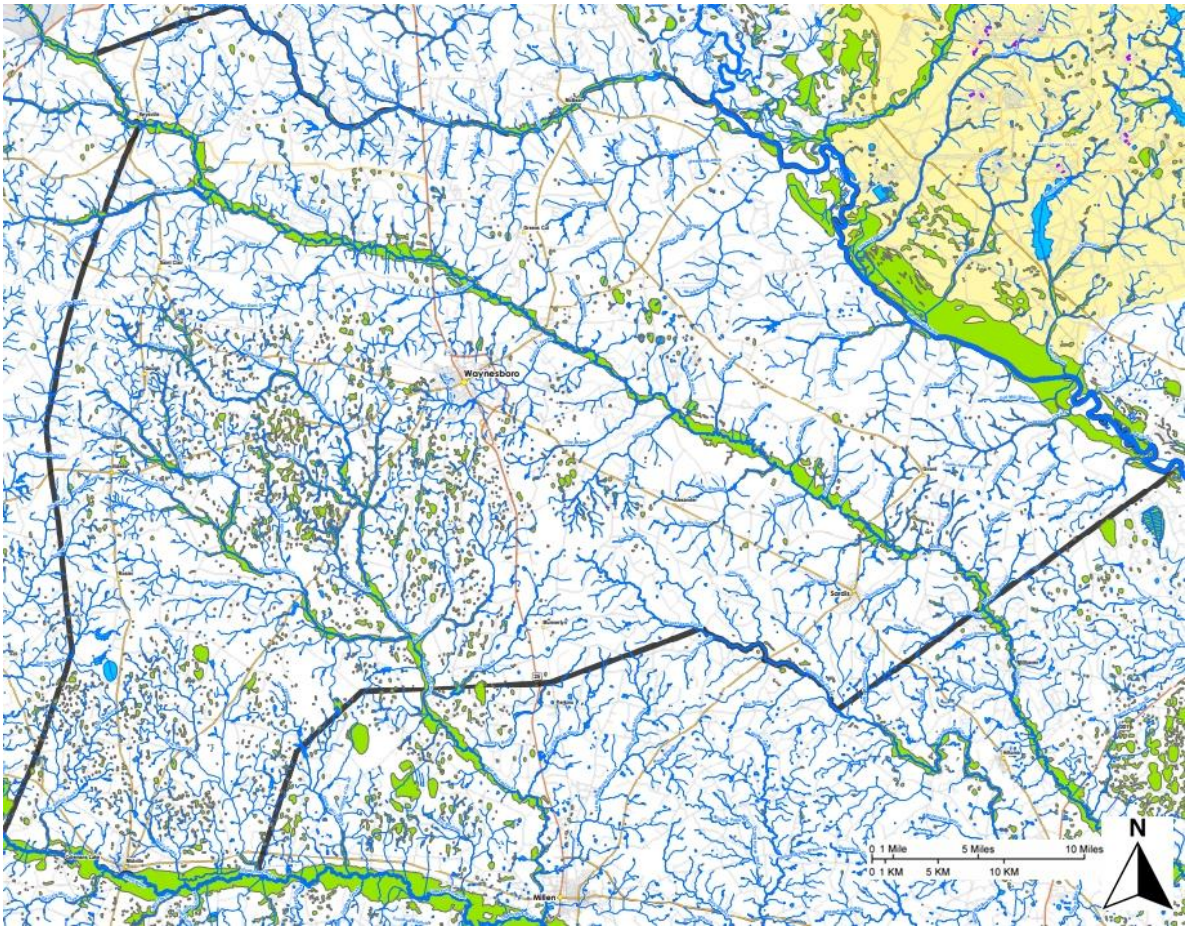


Figure 2-4 Burke County hydrology with the floodplain visualized (ArcGIS 2023)

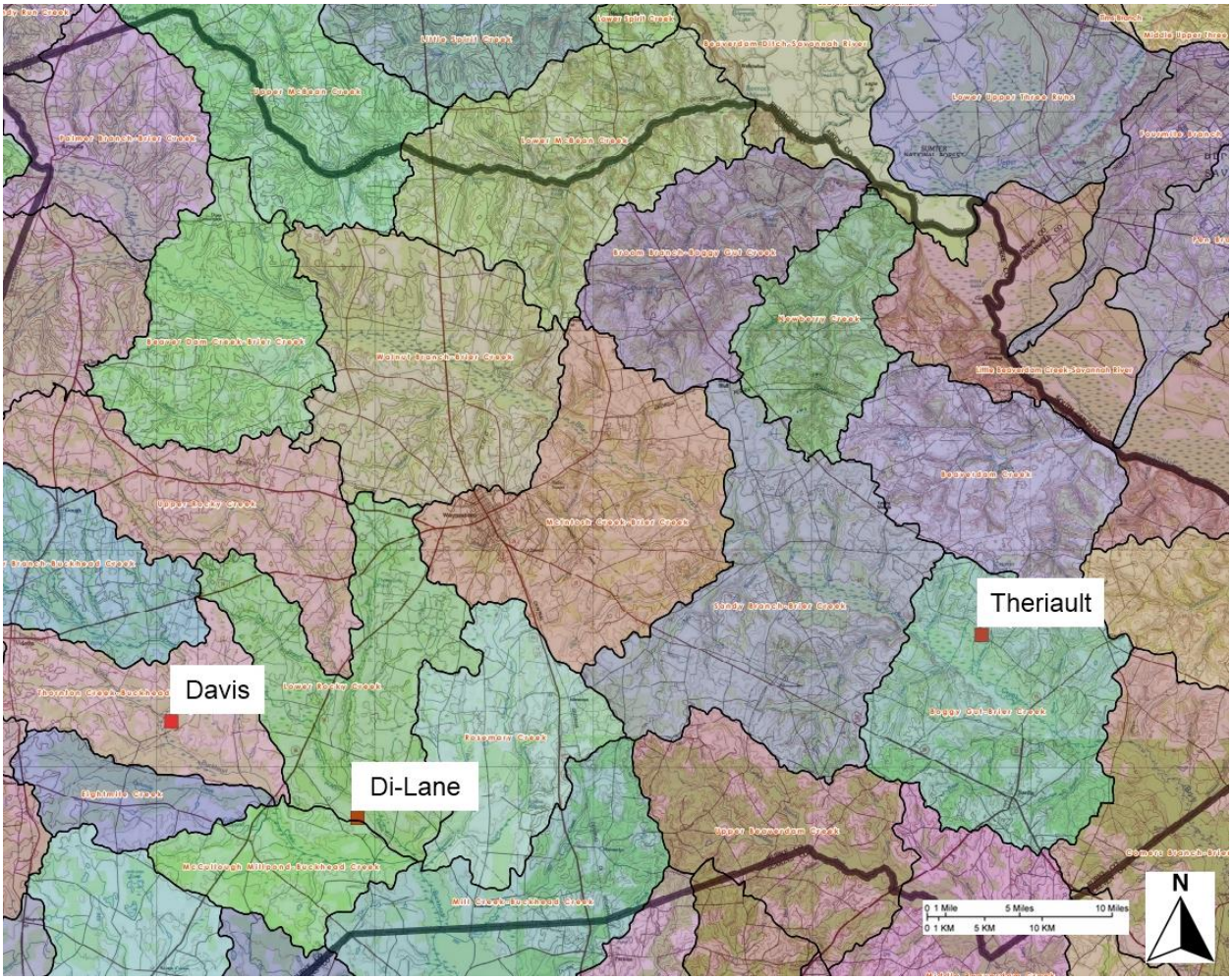


Figure 2-5 Burke County's watersheds with the three sites noted (ArcGIS 2023)

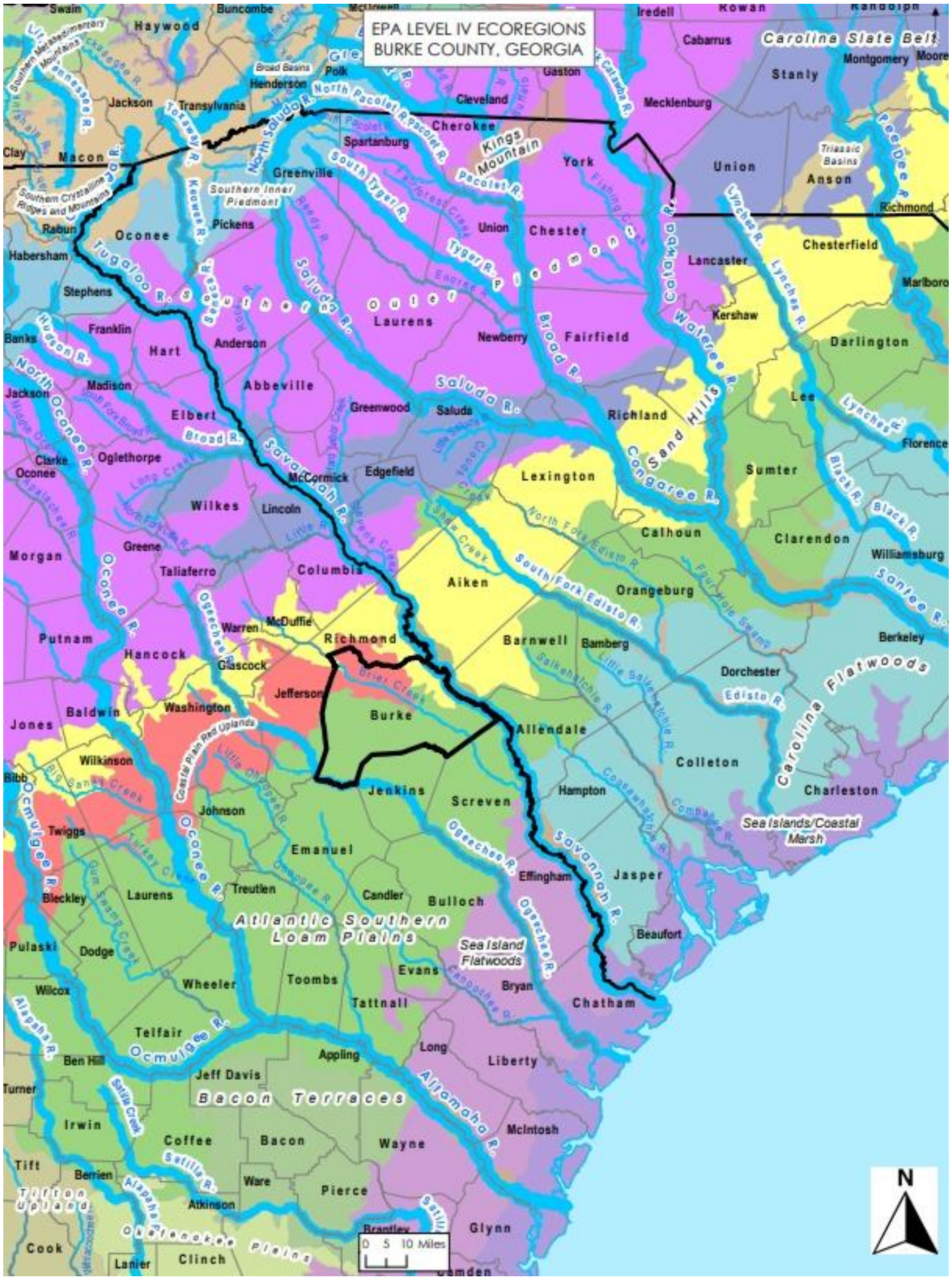


Figure 2-6 The ecoregions of the Coastal Plain and Burke County's position therein. Light red shading indicates the Coastal Plain Red Uplands, yellow shading indicates the Sand Hills, and green shading indicates the Atlantic Southern Loam Plains (ArcGIS 2023)

Figure 2-7 The EPA ecoregion for Burke County with the three sites noted. Light red shading indicates the Coastal Plain Red Uplands, yellow shading indicates the Sand Hills, and green shading indicates the Atlantic Southern Loam Plains (ArcGIS 2023)

Another unique characteristic of Burke County is that it is situated within the footprint of the Carolina Bay phenomenon. There is much debate surrounding the genesis of Carolina Bays, but scholarship can agree on their description. Carolina Bays are usually oblong, shallow, crater-like freshwater "ponds" that are geographically scattered across the eastern seaboard (Brooks et al. 2010). They are resource-rich and provide another aquatic sub-environment that Terminal Pleistocene and early Holocene hunter-gatherers could have exploited. During the drier periods of the Terminal Pleistocene and Early Holocene, these bays would be more geomorphologically recognizable as freshwater lakes, essentially oases for groups not surrounded by abundant water sources (Brooks et al. 2010). It has also been noted that during the Younger Dryas, hunter-gatherer sites in Florida were geographically clustered around sinkholes indicating that freshwater was at a premium during this time (Thulman 2009). Another geomorphological consideration is that the eastern rims of the bays have higher, usually sandy, banks than the other sides (Brooks et al. 2010). The most attractive iteration of a Carolina Bay to hunter-gatherer groups would be their colocation with high quality lithic resources. Concentrations of water, such as sinkholes in karst environments, in combination with the presence of lithic raw materials have proven attractive areas to hunter-gatherers in the Southeast as two essential materials are in close proximity (Parish and Robinson 2022).

Burke County indeed has an abundance of lithic raw material in the form of varying chert deposits scattered throughout the area. It is theorized that landscape use in the area of Burke County might have been linked directly to the volume of available chert tool stone (Smallwood et al. 2015). The predominant tool stone in the area is specifically Coastal Plain

chert which is a form of Tertiary-aged marine deposit that is found as far south as Tampa Bay (Upchurch et al. 1982). Albert Goodyear and Tommy Charles documented 27 quarries in the vicinity of 3 counties, Allendale County, South Carolina and Burke and Screven Counties, Georgia (Goodyear and Charles 1984). It is important to note that the authors were confirming human evidence of quarry sites and not simply chert formations as the former indicates actual human activity and the latter simply a potential resource location.

One revealing site in the survey is identified as “Wade Plantation Quarry No. 1.” This site is located in Screven County, Georgia, directly to the south of Burke County, and is highlighted due to the uniqueness of a particular find there. A large, detached piece of chert was recovered from the Wade site that had not been encountered before. It is described as "coralgal grainstone" since there are coralline algal remains embedded within it (Goodyear and Charles 1984: 107). This indicates provenience in a chert formation known as the Sandersville Limestone Formation as these inclusions are not known in the Allendale formation. Thus, the implication is that someone brought chert from one quarry to another to be, most likely, fashioned into some type of tool. This possibly indicates that these quarry sites might have served as meeting places and workshops and were not limited to simple lithic material acquisition locations. This is important to consider as one of the primary questions surrounding quarry sites such as the aforementioned Topper is the scope of their use outside of quarrying activities, or if any such use was ever present. This also has bearing on this thesis research as human mobility and settlement patterns are investigated.

Shane Miller and colleagues used Goodyear and Charles’ work as a basis for a follow-up field study of these quarry sites from 2015-2019 (Miller et al. 2022). This research was

undertaken, in part, in an attempt to observe how site activities varied based on proximity to these quarries. This was accomplished by conducting 702 shovel tests (ST) and, when warranted, placing test units to gather further material. Of the 702 STs, 60% were positive and yielded approximately 15,000 artifacts. The authors rejected using distance-decay curve, which generally illustrates the inversely proportional nature of a geographic location's influence on a human group and their proximity to that location, as the data they were attempting to collect all came from a relatively close area around the source material (quarries) (Miller et al. 2022). Instead, they opted for spatial hot spot analysis, created by Gettis and Ord (2010), to map loci that illustrated quarrying activity specifically and then those that showed evidence of any other type of use or behavior. Miller and colleagues further note that using a distance-decay curve would most likely just show that the further people get from a source, the fewer tools they will possess made from raw materials local to that source. It is the direction they move in after they obtain the material that is more informative (Miller et al. 2022).

The team also recovered material dated via Optically Stimulated Luminescence (OSL) to the currently agreed upon Clovis time period. The artifacts indicated knapping and tool-crafting activity. These finds are unique in that they were taken from the bottom of a marsh-like area that was a Carolina Bay at the Terminal Pleistocene and had limited refit distances. This implies that the lake was frozen and used as a knapping site. If this theory is true then the Carolina Bay phenomenon could have had multiple exploitable aspects before the onset of the Holocene (Miller et al. 2022). It also indicates that knapping activity occurred near a camp area over the pond's shoreline which the team also tested and recovered several Early Archaic points (Miller et al. 2022).

The geography and position of Burke County on the Coastal Plain would afford any given population many varied exploitable resources. Fresh water is in abundance in multiple forms. There is also present a diversity of flora and fauna that could provide raw resources for food and shelter and also the ability to craft tools to process these resources. Collectively the county's attributes create a desirable environment for any given hunter-gatherer group.

2.3 Conclusion

This chapter described the general environment and resources of Burke County and the larger Southeast during the Terminal Pleistocene and Early Holocene. I also generally described hunter-gatherers in the area during this time. These two subjects are critical to be understood before one can contextually analyze any mobility and settlement models, which is the focus of the next chapter.

3 HUNTER-GATHERER MOBILITY AND SETTLEMENT MODELS IN THE SOUTHEAST

The deductive thrust of this thesis is based on the usefulness of previously collected materials from three distinct spatial scales. These materials are from the same area and inform a broader picture of two temporal periods through the testing of existing theoretical models. In this chapter I outline various different hunter-gatherer models that address the lifeways and mobility patterns of these groups that are widely and generally applicable. I then focus on two models, and supportive examples, that help researchers understand settlement distribution in the Terminal Pleistocene and Early Holocene in the Southeastern US. These two models provide a macro-, meso-, and micro- view of potential subsistence strategies employed by hunter-gatherers of the Paleoindian and Early Archaic periods. General hunter-gatherer models and theory are outlined first and then specific settlement patterns that pertain to the southeastern United States and Savannah River Valley are discussed. These illustrate certain patterns that can be then used as correlates to compare with the location and artifactual data provided by the three collections I investigated.

3.1 The Collector-Forager and Primary Forest Efficiency Models as the Basis for Understanding Hunter-Gatherer Subsistence

Lewis Binford (1980) investigated the nature of hunter-gatherer settlement systems and mobility patterns. He broadly questioned the level of variability in these groups' adaptations to their environment as well as their organizational structure. Binford also theorized about the consistency of variability regarding archaeological materials and sites that were created and occupied by hunting and gathering peoples. Binford's underlying assumption was that archaeology as an isolated discipline provided only marginal value in addressing these issues.

This is because archaeology only analyzes the material remnants of the past and not the living systems that led humans to create these materials or the "why" of their eventual deposition. Binford (1980) argued that only by considering these living systems can one hope to gain insight into the processes that led to their placement in the archaeological record.

Binford (1980) first addresses foragers as a specific group and uses the San people, an exonym for an Indigenous group whose ancestral lands are in southern Africa, as a forager template. The template is underscored by the San people's tendency to roam from one resource patch to another. The availability of these resources is seasonal so different patches are only exploited at certain times of year. Binford notes foragers display minimal caching behavior and typically strike out daily in the morning to obtain various resources and return to their settlement in the evening. These resources are then exhausted and the process repeats. The residential base of these various groups moves throughout the year. If there are abundant resources in a given area, the moves are more frequent and over shorter distances to maximize coverage of the resource footprint. In cases where resources are less abundant and dispersed over a larger area, gathering groups are smaller and more numerous.

Binford (1980) differentiates the forager model with a group whose strategies he dubs "collectors." Time spent studying the Nunamiut Inuit of the Arctic inspired Binford to create this analytical category. Collectors are characterized by their tendency to cache resources for at least a portion of the annual cycle as well as form themselves into task-oriented collection parties that target specific resources. These task-specific groups parallel foragers insofar as they can establish camps outside of the main, residential area to facilitate resource procurement; however, they tend to occupy these camps for a longer period of time. These are used as the

basis of resource procurement and processing, basically mining and refining raw materials, to then be returned to the residential camp for final use and disposition. The task groups are also highly specific in their intent, tool kit, and targeted resource as well as the resource location. They do not roam and limit themselves to chance encounters.

Collector procurement groups create various, more specific, site signatures than foragers do. Foragers have a residential home base that periodically relocates in relation to the locations of the resources for which those groups are foraging. Collectors, like foragers, have sites dubbed “field camps” by Binford (1980) where resources are processed away from the primary residential area. Collectors, however, have to process materials to satisfy total population-level needs over a much longer time frame, therefore the materials left at these sites will appear with more intensity in the archaeological record. The other types of sites routinely used by collectors but very seldomly by foragers are “stations” and “caches” (Binford 1980: 12). Stations facilitate necessary support activities for resource collection. Examples include reconnaissance and intelligence gathering and the specific ambush spot where game is hunted. Caches are used to store large quantities of acquired resources for a limited time. Field camps, stations, and cache sites will manifest differently based on the season and targeted resource. It must also be noted that a given location can serve redundant purposes, e.g., a field camp can also serve as a station when convenience allows. The variability of these sites will be potentially reflected in the archaeological record. Binford also points out that foragers and collectors are essentially strategies on a complexity spectrum, with collector strategies producing more site variability, and not indicative of two completely different and mutually exclusive subsistence modalities.

A second hunter-gatherer subsistence model is called Primary Forest Efficiency (PFE) and was proposed by Joseph R. Caldwell in 1958. It is premised on the idea that the economy of the prehistoric populations of the Eastern Woodlands of the United States were almost entirely influenced by their forest environment. This influence changes over time and can be seen in artifact assemblages that illustrate adaptive and innovative design in response to different conditions or needs. An example stated by Caldwell that is germane to the time periods covered in this thesis is the morphological differences in the most widely used points of the Terminal Pleistocene compared to those of the Early Holocene. Specifically, he states the larger, lanceolate points would be more conducive to thrusting at larger animals of the Terminal Pleistocene as opposed to the smaller, notched traditions of the Early Holocene that seemed to indicate ambush hunting of smaller game with an atlatl. Like Binford, Caldwell theorizes that prehistoric peoples were mobile and annual seasonality and accompanying resource variability drove the direction and nature of this mobility. He also notes that the Eastern Forest provided abundant floral and faunal resources, both terrestrial and aquatic, so that plant cultivation and similar innovations were unnecessary (Caldwell 1958). Deciduous forests in these locations would provide nuts, which are easily storable and have a high nutritional density, and year-round hunting (Dye 2011). The material correlates of this model one would expect to see are the wide-ranging technological changes that are ascribed to the Paleoindian, Archaic, Woodland, and Mississippian periods. While broad technological changes indeed took place, there was also much regional variability in specific technological indicators such as regional point morphologies in typable points (Smallwood 2012). This indicates some level of differing

cultural traditions between separate groups in the Eastern Woodlands that was driven by the proclivities of the groups of the time and not simply the surrounding environment.

Of note is that this model was formulated during the period of time when the "culture-history" paradigm dominated archaeological thought in North America. This approach defines cultures by the tools and materials they made and traces these changes in a linear fashion over time to illustrate a form of cultural evolution (Johnson 2020). Unfortunately, this renders the PFE model overly simplistic and assumes the presence of abundant resources is inversely proportional to the amount of effort needed to exist in proximity to them. The PFE model is also driven by an environmentally deterministic framework and assumes that tool kit change is only driven by environmental factors. The hunter-gatherers of the Pleistocene and Early Holocene certainly had abundant resources in the Savannah River Valley, however, and readily exploited them with a diverse tool kit that indeed changed over time while the resources maintained their relative abundance.

A recent example of this can be seen in research done at a hunter-gatherer site in South Carolina. Crossover immunoelectrophoresis (CIEP) analysis was undertaken in tandem with microwear analysis by researchers on Pleistocene and Early Holocene hunter-gatherer Allendale Coastal Plain (ACP) chert tools and temporally-associated gastroliths recovered from the eastern sand-rim of a Carolina Bay, dubbed Flamingo Bay (38AK469), located in Aiken County, South Carolina (Moore et al. 2023). Aiken County is directly across the Savannah River from the northern portion of Burke County and is situated in the geographic area covered by this thesis, the upper Coastal Plain and Central Savannah River Valley. The site stratigraphy indicates that the materials from the Paleoindian and Early Archaic periods are delineated by the Younger

Dryas boundary. The only other immunoglobulin studies undertaken on hunter-gatherer stone tools from the Southeast were done at Cactus Hill (44SX202) and Williamson (44DW1), both in Virginia. These both indicated traces of bovine (bison) and deer protein remains (Moore et al. 2023). The protein analysis of the materials from Flamingo Bay indicates that hunter-gatherers occupying the site from the Paleoindian and Early Archaic periods processed deer, bison, bear, felines, and various waterfowl. Other activities such as bone boring and wood-working were also indicated. The microwear analysis further indicated concentrated butchering activity. Collectively, these data point to the availability of a plethora of animal prey species options and a site occupation consistent with immediate post-hunting as well as residential activities utilizing a variety of tools over time. Thus, the materials recovered from Flamingo Bay contain typable points and tools from two distinct chronological periods that were used to process similar floral and faunal remains. The resources were equally as abundant yet the groups occupying the site used very different tool kits to exploit them. This indicates there is more driving the tool-use decisions of groups than simply their environmental interactions.

3.2 The "High-Technology Forager" and "Staging Area" Models

Binford's and Caldwell's models broadly inform potential hunter-gatherer behaviors world-wide and in the Eastern Woodlands, respectively. They give a general sense of how hunter-gatherers might pattern their behavior but do not specifically apply to the peoples whose material culture informs this thesis. There are several more recent theories that attempt to explain the settlement patterns of, specifically, Terminal Pleistocene hunter-gatherers throughout the country. These theoretical patterns of hunter-gather colonization from this time period can also be applied at a regional level. Over time, two prominent theories emerged.

These are known as the “high-technology forager” model, proposed by Robert Kelly and Lawrence Todd (Kelly and Todd 1988), and the “staging area” model proposed by David Anderson (Anderson 1990, 1996). These models can be used to evaluate the colonization of the southeastern United States as well as the later distribution, mobility, and land-use strategies undertaken by these groups once they established themselves.

The “high-technology forager” model stipulates that the Pleistocene hunter-gatherers that initially populated and spread across the continent were able to do so very rapidly and effectively due to their knowledge base. They came into the area with prerequisite hunting ability, meaning ecological knowledge of their prey and honed kill strategies, and only needed to adjust this to the nuances of any novel environments they encountered (Kelly and Todd 1988). The underlying success of these adaptations and survival tactics was based on the bifacial tool kit these groups possessed which was modified over time, as needed (Kelly and Todd 1988). The strategy would be indicated by morphologically consistent tools being deposited by these groups as they quickly traversed the landscapes they encountered.

The “staging area” model argues that these same individuals entered the continent, specifically the Southeast, and then clustered around major watercourses. They settled in these areas and adapted over time to the available natural resources, not the least of which was abundant lithic raw material (Anderson 1990, 1996). Stable and plentiful natural resources led to population growth and subsequent expansion to new “staging areas.” As the groups spread across the landscape, they would concentrate in some areas more than others and, over time, establish subtle cultural differences (Anderson 1990, 1996).

Two concepts from disciplines outside of archaeology, biology's long-distance dispersal (LDD) theory and mathematical ecology's "traveling salesman problem" can help explain the possibility of these models (Applegate et al. 2007). LDD illustrates that human beings, on foot, can travel surprisingly long distances in very little time. The "traveling salesman problem" states that humans are very adept at finding the most rapid and efficient path to a new location with little to no prior knowledge of the path itself, just a generalized sense of what constitutes a location that contains the resources they desire. Together, these concepts show that humans could traverse landscapes they found suboptimal to potentially more ideal locations, or collections of resources, without prior knowledge and do so relatively quickly. Once the desired location is reached, these groups would likely entrench themselves there. Thus, a group of colonizing hunter-gatherers during the Terminal Pleistocene could have entered the country in the extreme Northwest and made their way to the Southeast relatively quickly. Once they reached a given location deemed satisfactory, they would become established there and archaeological material would build up more intensely than along the route they took.

The above theories are supported by research completed by John O'Keefe at McGill University in the 1970s and corroborated by the work of many more individuals later (O'Keefe 1978, O'Mara 1995). While predating the models above, O'Keefe's research is germane as it explores how the human brain processes locational information. O'Keefe was compelled by the fact that no discipline in science could define what being "lost," as a person, actually meant in terms of brain function (Gonzales 2017). In actuality, the hippocampus of the human brain contains particular cells that are, on average, firing once per second in order to create a spatial map of the environment a person finds themselves in. These are referred to in scholarship as

"place cells" and they are constantly updating and "remapping" based on what a person sees, their body's orientation, and the number of times a known place is revisited (O'Keefe 1978). When a place that has been mapped by the hippocampus is returned to, the "place cells" begin to fire at rate five-hundred times faster than average and the area is more intensely imprinted on the brain.

The hippocampus does not, however, motivate an individual to go to any particular location. This is spurred on by an emotional need and governed by activity in the amygdala (O'Keefe 1978). The combination of the two would push a human wishing to find a perceived ideal environment ever forward while keeping a broad track of where they had already come from. If one applies this concept to a larger group that can communicate with one another and has similar goals, it is not a large conceptual leap to surmise that their efficiency in traversing the landscape to a location that would fulfill those goals would be greatly enhanced beyond the level of what an individual could achieve. Thus, from a biological perspective, human beings are certainly adept enough to hastily and effectively traverse long distances and keep track of where they have been. This supports the possibility of both the "high-technology forager" and "staging area" models.

Both models were evaluated by Ashley Smallwood (2012) and applied to previous analysis of regional archaeological data. Smallwood used the biface reduction sequences and final Clovis point morphologies at three sites in the Southeast: the Carson-Conn-Short site (40BN190) in Tennessee, the Topper Site (38AL23) in South Carolina, and the Williamson site (44DW1) in Virginia. These sites are evenly distributed over the geography of the Southeast and are far enough away from one another to safely theorize that their respective populations

would not have had direct influence over each other. They can thus be considered distinct sub-regions within the Southeast. Smallwood (2012) also used other criteria to settle on these sites. These are: they all contain lithic raw material in sufficient amounts as to not act as a constraint in tool manufacture, they have manufacturing debris in significant volumes to allow for accurate analysis of reduction techniques, and, lastly, these sites all contain lithic artifacts that illustrate each major stage in the production sequence: preforms, bifaces at various stages of reduction, and final point morphologies (Smallwood 2012: 692). Figure 2.8 is a map from Smallwood's article illustrating the sites Smallwood studied and a theoretical footprint of Anderson's "staging areas."

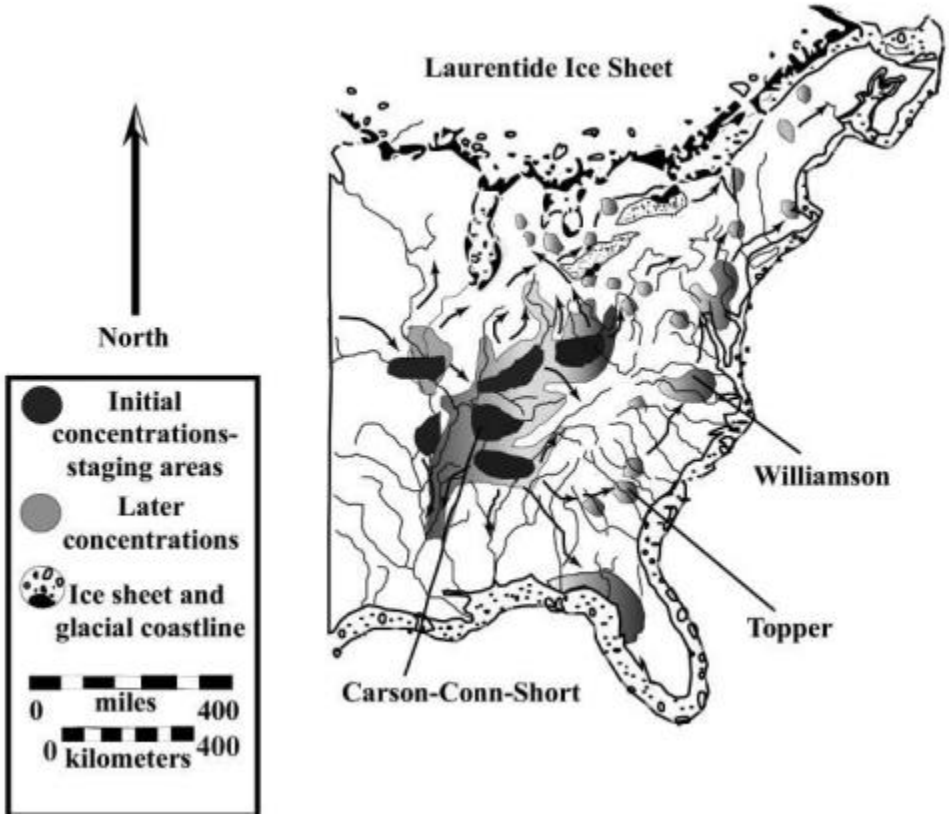


Figure 3-1 Illustration of staging areas and supporting sites (after Smallwood 2012: Figure 1)

Smallwood (2012: 707) notes that lithic resource variability did not influence the final projectile point morphology at any of the sites. Despite differences such as tabular versus nodular chert and various quality issues, by the time these projectile points were reduced to the middle stage of production, their morphologies were very similar (Smallwood 2012: 707). The limited morphological differences manifested in the final point design. The Carson-Conn-Short site bifaces were the largest in length as well as blade and basal width. The Williamson site's bifaces had a larger base-to-blade ratio that can either be interpreted as a simple stylistic choice or a function of remaining hafted as they were reduced via maintenance actions such as resharpening. Topper morphologies fell within the two extremes of the other sites. Smallwood concludes that the evidence manifested at these three sites is more indicative of an initial peopling of, and later distribution and occupation in, the Southeast by Pleistocene hunter-gatherers and later populations in the manner proposed by Anderson under the "staging area" model (Smallwood 2012: 709). This is because these data imply a group or groups entered the Southeast and at some point separated, subsequently grouping near large watercourses in separate regions. The consistent differences in typable points implies these groups generally stayed in their respective areas and developed differing cultural traditions as opposed to continually moving over large portions of the Southeast.

The "staging area" hypothesis is also bolstered by the Carolina macroband phenomenon. The abundant resources of the Coastal Plain in the Carolinas seemingly led to late Pleistocene peoples settling in general areas with particular tool stone sources. These are the Uwharrie Rhyolite and generally meta-volcanic rich areas of northern South Carolina and North Carolina as opposed to the chert-dominated areas of south-central South Carolina and

eastern-central Georgia. Points made from these source materials are generally centered in these two separate areas, yet some overlap exists in their distribution footprint which indicates some sort of, potentially seasonal, interactions (Daniel and Goodyear 2018).

The "staging area" hypothesis is also reinforced by a technofunctional grouping of artifacts known as the Allendale Brier Creek Clovis Complex (ABCC). This is a potential grouping of late Pleistocene hunter-gatherers theorized by Goodyear and born out of his cryptocrystalline hypothesis. Goodyear originally published his cryptocrystalline hypothesis in 1979. The idea is based on his observations of the consistent use of high-quality, cryptocrystalline (chert) raw material in Paleoindian tool kits to skillfully craft a variety of tools to respond to any need or environment (Goodyear 1979). Over time, Goodyear honed in on the Central Savannah River Valley and the tool kit of the people of the Paleoindian period who inhabited it.

It is important to consider the ABCC when studying current and future collections from Burke County as it is in the currently known geographical footprint of the potential phenomenon and contains Brier Creek itself. The ABCC is currently informed by data from the aforementioned Topper site (38AL23) as well as the Big Pine Tree site (38AL143). Both are quarry-related sites and are located on the 33rd latitudinal parallel, directly across the Savannah River from Burke County in Allendale County, South Carolina. Topper overlooks the river from a high bluff and is situated on top of a large outcropping of Allendale Coastal Plain (ACP) chert (Goodyear and Sain 2018: 8). As mentioned earlier, Topper contains material that is considered to predate the known Clovis timeframe as well as material evidence from every subsequent prehistoric cultural period (Goodyear and Sain 2018: 8). More importantly, it is the only Clovis

site in the entire Southeastern Atlantic Coastal Plain of Georgia and South Carolina that has been rigorously and extensively excavated and recorded (Smallwood et al. 2013: 280).

One important aspect of the Topper site is the uniqueness of the lithic technology. The tool assemblages are composed almost exclusively of prismatic microliths, cores created from bipolar reduction, and large implements such as hand axes, plains, and cores (Goodyear and Sain 2018: 30). These latter three implement types are usually found in association with quarries. Goodyear believes these tools indicate that the primary activity conducted there was the creation of tools from other mediums such as wood, bone and other osseous material such as ivory and antlers**.** These would then be used for hunting and other subsistence activities (Goodyear and Sain 2018: 30). If this is indeed the case it is highly interesting considering the abundance of lithic raw material at the site as well as the general area. The artifacts recovered at Topper are so collectively unique versus their counterparts from the same time period that they have been given their own assemblage title, the Clariant Complex (Goodyear and Sain 2018: 30).

Suffice it to say as more Clovis-era material culture is unearthed and studied it is becoming evident that these Terminal Pleistocene hunter-gatherers had a multitude of tools that they relied on that also carry particular cultural signatures that appear to be regionally-based (Goodyear 2018). The material culture recovered at Topper and Big Pine Tree are primarily cores, blades, and preforms. Many of these are recoverable currently as they were discarded during manufacturing which stands to reason as these sites were primarily quarries (Goodyear 2018). Finished points are extremely rare with only four being excavated from Topper and two from Big Pine Tree (Goodyear 2018). Blades are found in the surrounding area

intermingled with Clovis finished point and Clovis preform finds (Sain 2012). These blades are usually larger than quarry blades and often have gravers chipped into them and multiple cutting surfaces (Goodyear 2018). Other tools aside, the ABCC is delineated by the use of ACP chert as the primary tool stone to knap finished Clovis points (Goodyear 2018). These artifacts are more intensely clustered around ACP chert quarry sites. Figure 3.2, an adaptation of a map from Goodyear's ABCC article, illustrates points that he believes were made by people using the ABCC tool kit as well as the ABCC quarry sites and the sites that are the subject of this thesis. Figure 3.3 is the same map zoomed in to illustrate ACP chert Clovis points in the Central Savannah River Valley. It must be noted that these maps show general point distributions and are not georeferenced.

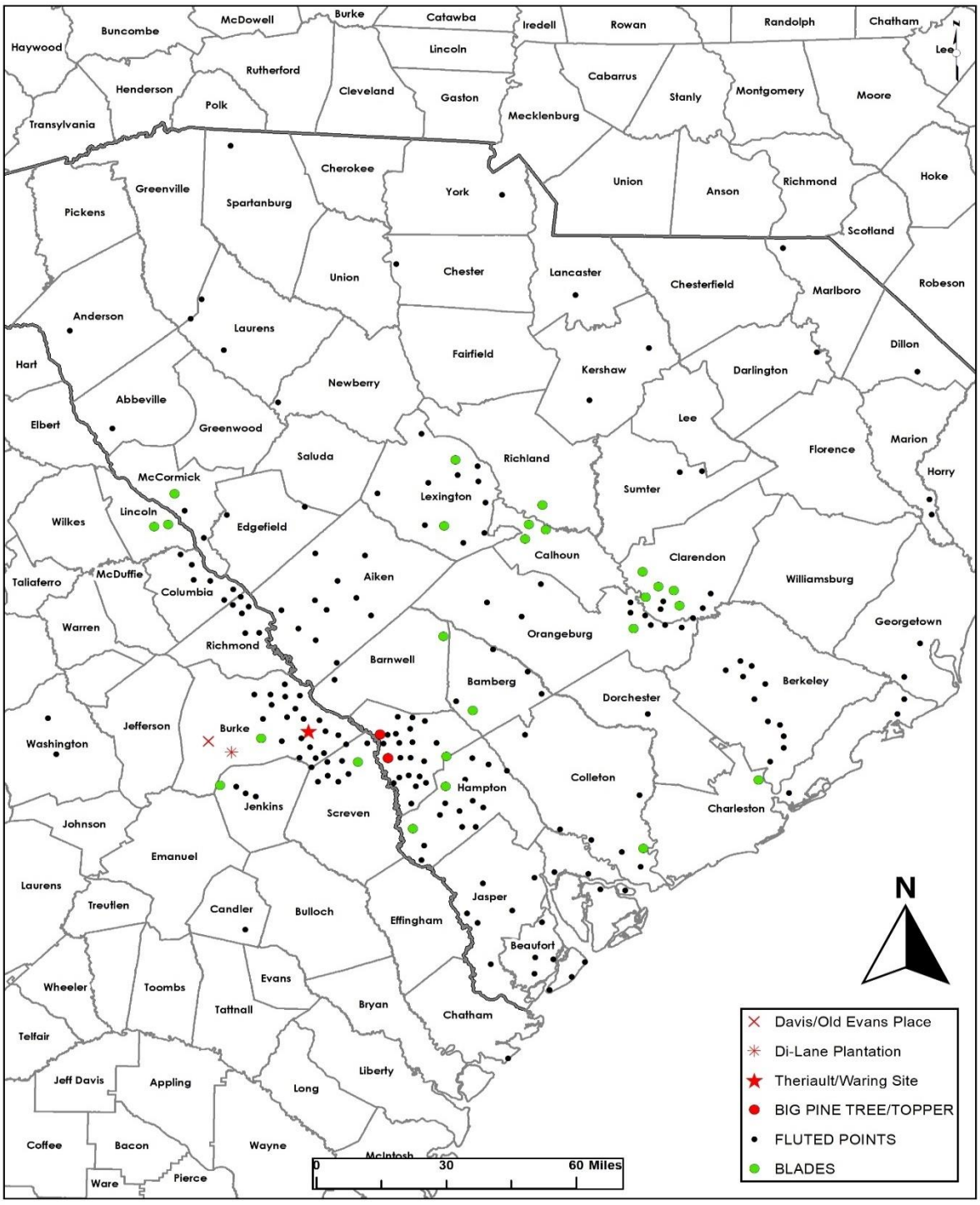


Figure 3-2 General ACP chert point/blade distributions, ABCC quarry sites, and the sites covered in this thesis (ArcGIS 2023)

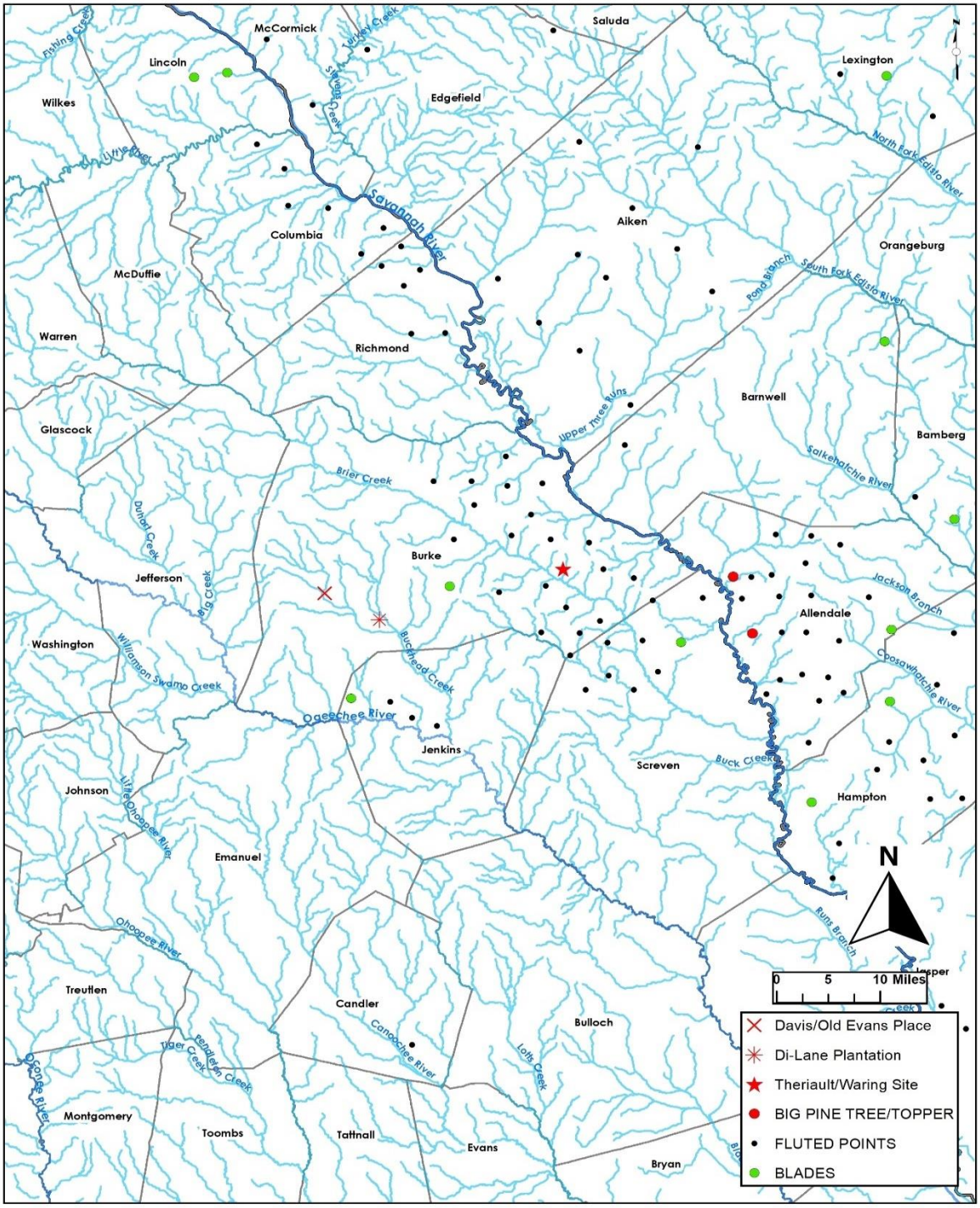


Figure 3-3 Figure 3-2 at the scale of the central Savannah River Valley (ArcGIS 2023)

Considered together, these maps illustrate the directly-proportional concentration of ACP chert origin sources and the Clovis points made from the material quarried at these sources. This general footprint is the basis of the currently known geographic delineation of the ABCC. Of note is that 90% of the Clovis point finds that serve as the data to generate the map are of a single artifact; therefore, there is no other associated data to help discern site-level activities (Goodyear 2018).

Given relatively sparse data from this time period and technofunctional group, Goodyear offers a framework for analyzing the relationship of potential ABCC sites and their functions. This would then inform ABCC settlement strategies. The general range of the ABCC is the Coastal Plain. There is some evidence of ACP chert Clovis points in the Piedmont physiographic province, north of the Fall Line, suggesting temporary resource runs or limited social interactions between the potential macrobands mentioned above (Daniel and Goodyear 2018; Goodyear 2018). A more specific area of concentration is a zone. Goodyear puts the ABCC cultural zone as just south of the Fall Line. Specifically, in South Carolina, situated between the Savannah, Saluda, and Congaree-Santee Rivers (Goodyear 2018). This would place Burke County in the westernmost lateral extent of the ABCC footprint. Goodyear continues that localities are sub-zones that provide specific resources such as lithic material, flora and fauna. He notes that the ACP chert quarries as well as the Brier Creek drainage itself qualify as favorable localities for hunter-gatherers using ACP chert (Goodyear 2018). Topper and Big Pine Tree, which serve as the basic “type-sites” of the ABCC, are quarries; therefore, any natural sources of high-quality tool stone have the potential to be sites. Goodyear also lists several known Clovis sites that were sand rims around the edges of Carolina Bays. He further

speculates that Binford's theory of locations used to meet collectively and access other, resource-rich areas, would be sought after by the people of the ABCC. These sites would be recognizable by their high concentrations of artifacts from this time period and potentially subsequent cultural periods (Goodyear 2018). If present in a region with above-average hydrological resources, sites that have access to an extensive ridge system would be at a premium.

The amount of archaeological occurrences (quarries) of ABC chert in Burke and Screven Counties is twice that of Allendale County, SC (Goodyear 2018). Given the ABCC tool kit users' inclination to keep relatively closely tied to their lithic sources, these areas have great potential for ABCC sites. These chert outcroppings also occur in floodplains as well as hilltops thus both could be potential ABCC sites as this is the same situation that manifests at Topper. Goodyear notes the Theriault site is a perfect example of a potential template to seek parallels within the Brier Creek drainage (Goodyear 2018).

3.3 The Younger Dryas Chronozone Model

In 2015 Smallwood and colleagues used PIDBA data to test whether or not human populations declined or reorganized during the Younger Dryas. They also used the paleoenvironmental record and PIDBA data to test for landscape changes during the Paleoindian period. Using point frequencies and distributions, raw material, transportation distances, and directions, they conclude that significant land use changes occurred in the Paleoindian period which coincided with coastal sea level fluctuations and the Younger Dryas.

The Younger Dryas Chronozone (YDC), a term originated by Meltzer and Holliday in 2010, represents a period when warming was interrupted by cooling for approximately 1,150 years after which warming resumed (Meltzer and Holliday 2010; Smallwood et al. 2015). YDC impacts were not universal across the continent and manifested differently at the regional level. Meeks and Anderson postulate that, in the Southeast, the YDC was potentially very influential on population distributions (Meeks and Anderson 2012). Using ^{14}C site dates and point distribution data from PIBDA, they noted that there was a decline in post-Clovis point incidences, especially in the number of non-Clovis fluted point forms. Non-fluted post-Clovis point forms were more frequent than their fluted counterparts but still lower in number than Clovis points (Meeks and Anderson 2012). These decreases were noted to have occurred in the early and middle portions of the YDC, 12,800-11,900 cal BP. This implies a population decrease and reshuffling immediately following the Clovis period that coincided with the onset of the YDC. The authors also found this to be a trend across the entire North American continent (Anderson et al. 2011). The population then remained low, compared to the Clovis period, but stable. Meeks and Anderson (2012) suggest that the post-Clovis fluted and unfluted points represent geographically distinct post-Clovis groups as their styles are consistently found in certain geographical areas. They link this back to Anderson's "staging area" hypothesis, described in the previous section, in which post-Clovis hunter-gatherers tended to cluster around resource-rich locations and generally stay there (Meeks and Anderson 2012). Since this phenomenon manifested at the same time as the onset of the YDC, a connection is implied.

As the YDC reached its end and the Pleistocene transitioned into the Holocene, the same geographic and point data indicates a large population increase or some manner of

demographic change. This corresponds to frequencies of Dalton points and various other Early Archaic period side-notched traditions. These point types occur in a larger geographic footprint which implies that hunter-gatherers during this time broke their consistent connections to one resource location and spread out across the Southeast. Meeks and Anderson (2012) note that more detailed changes could have been occurring at sub-regional levels and that the population decline is not evidenced as much in the interior regions of the Southeast. They further theorize that the changing sea-levels of the time would most likely have led to the relative abandonment of the then-volatile coastal zone as a consistently occupied area. The authors state that in order to analyze this aspect of their theory, localized archaeological evidence should be considered to see the impacts of the YDC at a finer scale (Meeks and Anderson 2012).

Smallwood and colleagues (2015) focus specifically on Georgia to understand the effects of the YDC on the populations located there at the time. Pollen data indicates a generally moist and cool period in the YDC. The authors note that pollen cores taken near Macon, Georgia indicate a humid oak forest environment (Smallwood et al. 2015). Macon is situated directly below the 33rd parallel and the Fall Line and directly in line latitudinally with Burke County. The coastal zone at the time saw sporadic rises in sea-level with some occurring rapidly. Sea level rise is absolute in forcing people to relocate. This all coincided with a rapid extinction of over 30 types of megafauna, therefore 30 types of large protein, fat, and organ resources as well as leather and bone used for tools and reducing exposure to the environment (Haynes 2009). Due to the inexact nature of the floral and faunal changes at the time, the authors focus on the more well-understood sea-level record for purposes of analyzing the YDC's effect on population changes.

The authors use the point categories of Clovis, post-Clovis fluted, post-Clovis unfluted and Dalton, opting to not include points in the Early Archaic period side-notched tradition (Smallwood et al. 2015). The points are sourced to the county level via PIBDA and the counties then grouped by physiographic region. Raw material type and distances to this material are also considered. The scale of distance-to-source for the lithic raw material locations are "local" (distance < 20 km), "nonlocal" (distance >/= 20 km and < 100 km), and "exotic" (distance >/= 100 km) (Smallwood et al. 2015: 27). Specific travel directions and distance values were only considered for the nonlocal and exotic categories (Smallwood et al. 2015). The authors note that the number of points does not equate to the number of people but can speak to relative population density. They also state a potential limitation is the fact that people could possibly have traded for raw material but that this is unlikely to adversely affect data at the regional level as, generally, Paleoindian period hunter-gatherers procured their stone locally (Smallwood et al. 2015).

The authors found that Anderson and Meeks' conclusion that the population declined and then resurged in the post-Clovis period is supported by their data. They also note that differences in time-span represented by each point category did not in fact affect the frequency of the points in the data. The time-spans used in the study were 350 years for Clovis, 400 years for post-Clovis fluted, 600 years for post-Clovis unfluted, and 600 years for Dalton (Smallwood et al. 2015). This indicates stronger support for Anderson and Meeks' proposed population fluctuations. The authors further note that these population dynamics are more pronounced in Georgia when compared to the Southeast as a whole (Smallwood et al. 2015).

The hunter-gatherers that made and used Clovis points had higher population densities in both the Ridge-and-Valley and Coastal Plain regions; however, the most intense occupations were in the Coastal Plain (Smallwood et al. 2015). Clovis groups tended to also stay closer to their raw material sources but occasionally had access to nonlocal or exotic materials. Most Clovis points made from Ridge and Valley chert were found in that region but when they occur elsewhere the distance from the Ridge and Valley region was an average of 106.8 km and generally tracked in a southeastern direction (Smallwood et al. 2015: 38). This indicates that these groups held on to the Ridge and Valley chert and preferred this material over the material found in the interim distance. Clovis points made from coastal plain chert were predominantly discarded locally and, when transported, the average distance was 41.9 km and omnidirectional (Smallwood et al. 2015, 38). The changes brought on by the YDC seem to indicate Clovis groups stayed closer to raw material sources in locations rich with these materials to hedge against the ambiguity of their fluctuating environmental situation.

As stated, there were much fewer post-Clovis fluted points in the survey than Clovis points. This indicates a population decline or a restructuring of the population or possibly both. The concentration of these point types is strongest in the Ridge and Valley region, potentially indicating a northwestern migration from the Coastal Plain by these groups. Post-Clovis fluted points were almost universally discarded in the Coastal Plain. There were only 20 of these point types recovered in Georgia (Smallwood et al. 2015). The post-Clovis fluted points indicate the overall same patterns as the Clovis points but on a more localized level. The authors theorize more concentrated settlements and declining mobility was due to the biotic changes caused by the YDC (Smallwood et al. 2015).

Post-Clovis unfluted points indicate a population increase as there are ten-times more of this category than post-Clovis fluted points (Smallwood et al. 2015). Post-Clovis unfluted point distributions mimic Clovis point distributions indicating similar land-use patterns and potentially comparable environmental conditions. The sample contains quadruple the number of Dalton points over post-Clovis unfluted points. This, combined with the latter having an already observed, pronounced increase indicates further population growth. PIBDA data indicate that there are more Dalton points than all other Paleoindian points combined. Coastal Plain Dalton using populations evidenced decreased mobility and increased tethering to localized raw materials (Smallwood et al. 2015). Most Dalton points made of Coastal Plain chert were discarded locally, but when transported were discarded in the Piedmont. Ridge and Valley Daltons were transported longer distances and potentially indicate a macroband interaction between groups using the Dalton tool kit. These groups were present during the end of the YDC and spread throughout every region of Georgia. There were still sea-level changes going on at this time and Dalton-kit using populations seem to have been equally willing to occupy the Piedmont and Coastal Plain at the same time (Smallwood et al. 2015).

My study tests the model proposed by Smallwood et al. (2015) for the regional Southeast at the county level. The authors note there are difficulties using the palaeobotanical record alongside the archaeological record, but localized archaeological records can be better controlled for, which supports the use of localized collections when they are available (Smallwood et al. 2015). The YDC had a major effect on the environment and sea level change. This coincided with heavy Clovis population concentrations around tool sources, then more intensive concentrations around these sources by early YDC populations in Georgia. Later

populations expanded and gravitated away from the Coastal Plain to the Piedmont and Ridge and Valley and then back to the Coastal Plain (Smallwood et al. 2015: 41). Those are the settlement pattern trends and occupational history I test with the Burke County data below.

3.4 Conclusions

Binford's collector-forager model was broad in scope and useful for understanding generalities in hunter-gatherer lifeways and mobility patterns. Caldwell's PFE model was simplistic and environmentally deterministic; however, it addressed the notion that hunter-gatherer tool kits indeed changed over time. The "staging area" hypothesis illustrates how initial colonization and subsequent geographical spread could have manifested over the entirety of the southeastern United States. The YDC model focuses on the demographic changes in these populations over their respective temporal periods in the state of Georgia. The "staging area" and YDC models can complement each other and provide a temporal and spatial view of hunter-gatherer subsistence strategies at unique scales. In the next chapter I present the site and collection data that are used to understand hunter-gatherer subsistence strategies under the framework of these models.

4 THE COLLECTIONS: HISTORY AND DATA PRESENTATION

In this chapter I present the history and data from the three collections. These collections offer macro-, meso-, and micro-scale views of Burke County much as the models in Chapter 3 offer interpretations of hunter-gatherer lifeways at similar spatial scales. Specifically, the three collections together offer a macro-view of the Brier Creek watershed and Burke County as a whole. The Di-Lane collection has a large footprint over multiple sub-watersheds and offers a meso-view of the county while the Steiner/Davis Plantation and Midgette/Theriault collections offer a micro-view of single habitation sites.

Before I introduce the collections, it is important to present a basic template of analysis for lithic artifacts, specifically the projectile point typologies found in the collections. The time periods associated with the artifacts in these collections has been explained in previous chapters. Figure 4.1 below serves as a reference for any confusion caused by artifact morphology descriptions contained herein. It is from the work of Whatley and Arena, Jr. and is a modification of the original iteration by Bullen (1975).

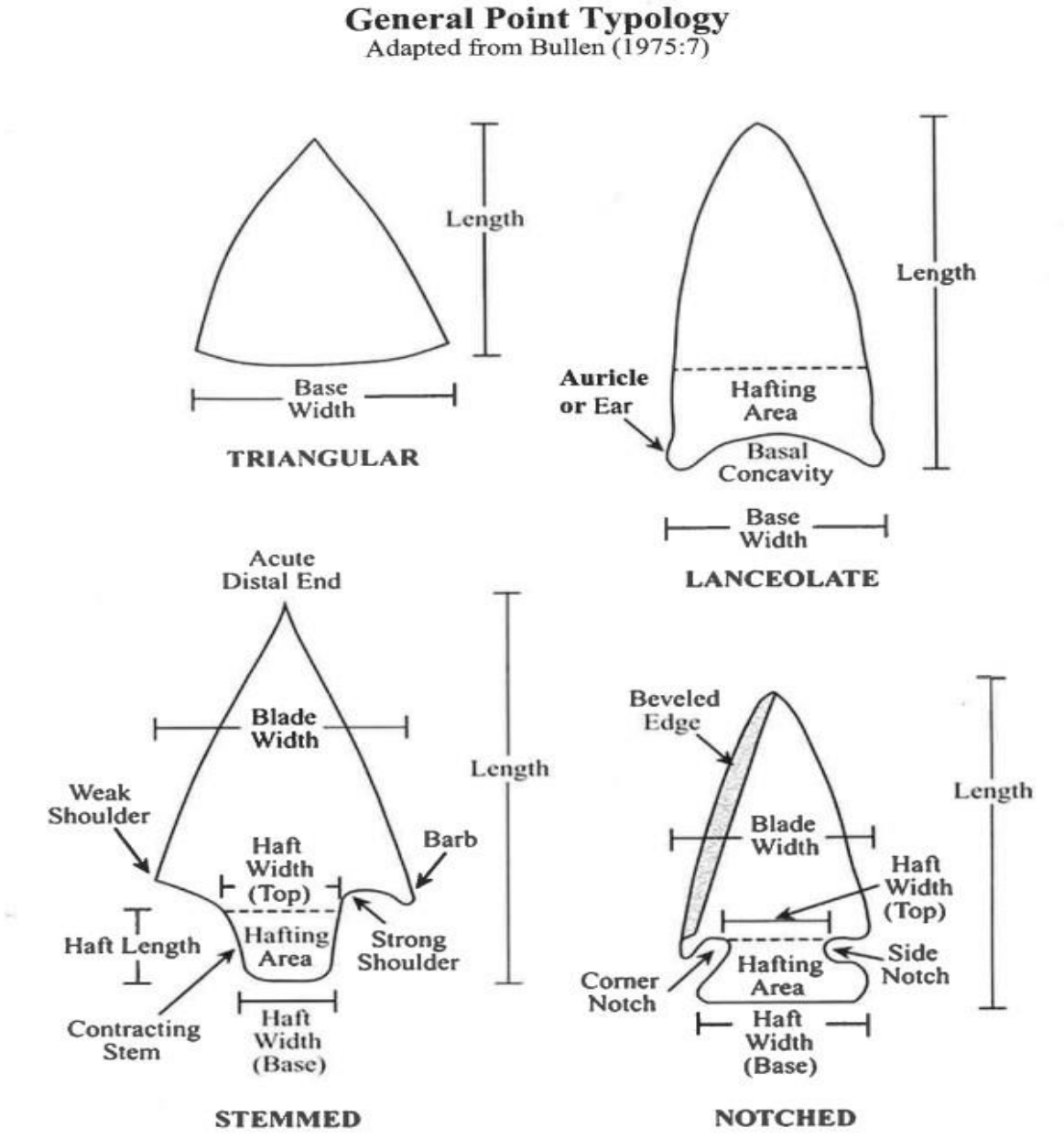


Figure 4-1 Figure 4.1 General point morphology and terminology after Whatley and Arena, Jr. (Reference)

Specific point types referenced in this thesis exhibit fairly circumscribed morphological traits. During the Paleoindian period, lanceolate points of various forms dominated the projectile point portion of the known tool kits. These were generally fluted or unfluted. Fluted

points included the Clovis points like those of the ABCC tool kit and unfluted points included typologies such as Beaver Lake and Quad (see Figures 4.2 and 4.3).

The Early Archaic tool kit generally contained typable bifaces that conformed to a smaller and more general shape of an “arrowhead” that floats around the popular consciousness. These predate true arrow points, however, and were primarily used as atlatl dart points and cutting tools. They are usually smaller than the bifaces from the Paleoindian period and are more triangular in shape with side and corner-notched hafting areas. Many of these point types are very similar morphologically. For example, the side-notched Big Sandy, Taylor, and Bolen Bevel points look similar except for their bases which are flat, concave, or convex, respectively (Figures 4.4-4.6).

Another consideration regarding lithic tools at a site is the stage in the tool’s life cycle. Tools start as spalls of raw material and then are reduced to their final form. That form is then put into use and maintained. Maintenance of these tools is inherently reductive so they become smaller in size over time. One must be aware that a biface might not resemble a good typological example due to these factors. It is important to be able to discern this, however, because it might be the only evidence that people from a certain time period were indeed present as represented by their tool kits and it also indicates the type of activity that was taking place at the site. Figure 4.7 below illustrates a sequence of six casts by the late Dr. Errett Callahan that show a Clovis point reduced from a spall through various preforms to the final Clovis point morphology. General familiarity with these point morphologies will help in understanding the references herein and the figures containing the artifacts themselves.

Figure 4-2 Casts of fluted (2 L) and unfluted (R) Clovis points from Blackwater Draw, the Clovis type-site

Figure 4-3 Paleoindian period Quad point; another unfluted lanceolate point with a different general morphology

Figure 4-4 Early Archaic period Big Sandy point

Figure 4-5 Early Archaic period Taylor point from the Theriault site

Figure 4-6 An Early Archaic period corner-notched Edgefield Scraper from the Theriault site

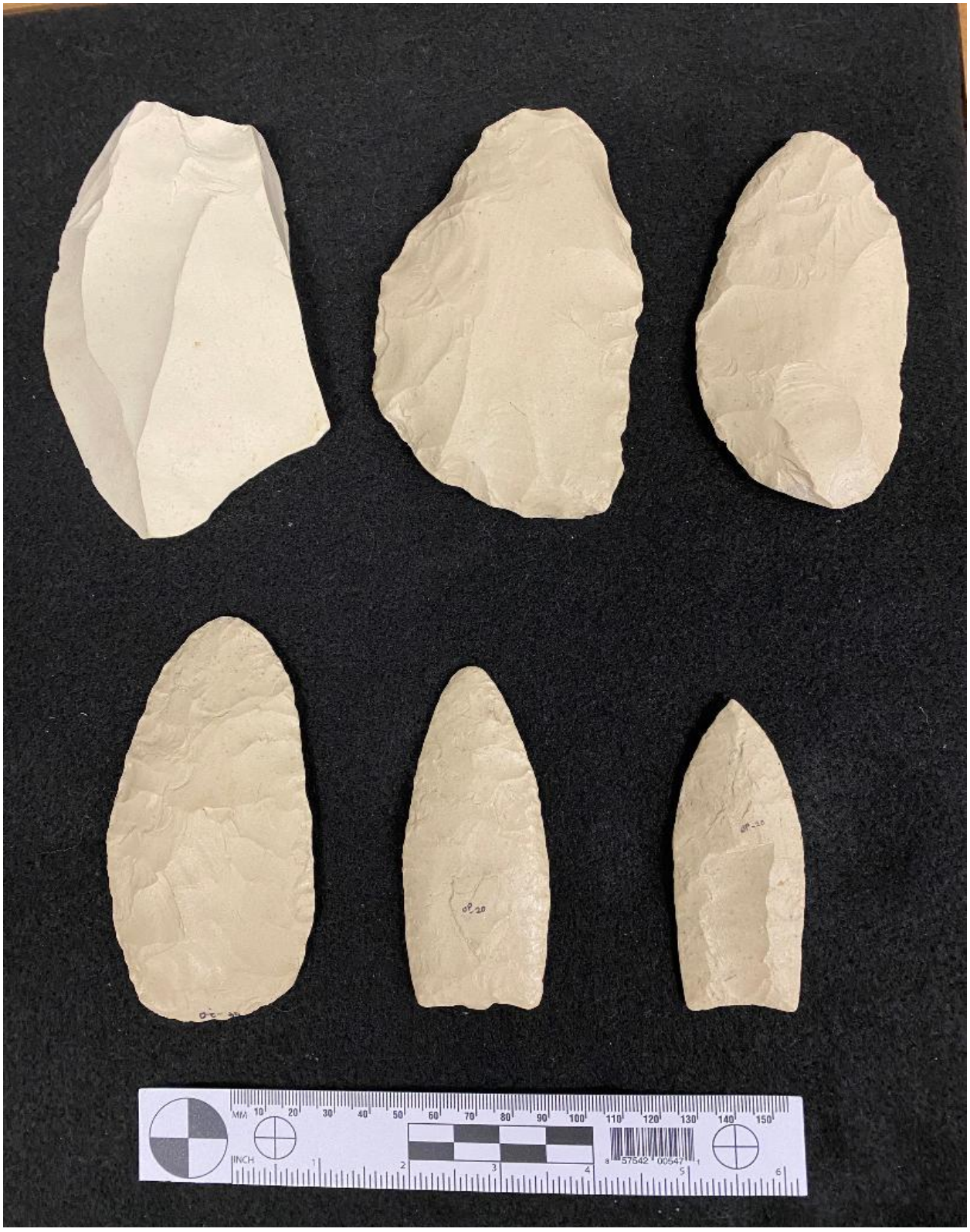


Figure 4-7 A Clovis point reduction sequence by the late Dr. Errett Callahan

4.1 The Di-Lane Plantation Collection: Introduction and History

Di-Lane Plantation is an 8,100-acre state-owned Wildlife Management Area (WMA) located in southwestern Burke County. It is approximately five miles to the east of Davis Plantation where Roland Steiner found a large portion of his collection. Indeed, Rocky Creek, which Steiner notes on several of his maps, flows directly through the middle of Di-Lane. The creek branches halfway through the property and that alternate watercourse path is actually named after Roland Steiner (GA DNR 2018).

Di-Lane was assembled from smaller plantations in the area in the 1950s by New Yorker Henry Berol. Berol was the heir to the Eagle Pencil Company and, as was common practice for many wealthy individuals in the Northeast, moved down south, in his case to Burke County, to establish a Bobwhite quail plantation and conduct canine field trials. Berol passed away in 1976 and the plantation was eventually sold to the state of Georgia's Department of Natural Resources (DNR) in 1992, which led to its designation as a WMA (Pavey 2012).

As is standard, an archaeological survey had to be conducted under Section 106 of the National Historic Preservation Act (NHPA) of 1966. This was an intensive and full coverage survey that took place from 1993-1996. It was conducted by Gulf Engineers and Consultants, Inc out of Baton Rouge, LA and Southeastern Archeological Services, Inc., out of Athens, Georgia. The survey results were organized into three separate documents that contained the details of the sites chosen for field testing. There were 280 total archaeological sites recorded in the survey, both prehistoric and historic (Braley and Malone 1996). The files

were eventually shelved by the United States Army Corps of Engineers, Savannah District, and became reference material. In 2012, technicians from the Alexandria Veterans Curation Program discovered the survey and set about organizing and updating it which included digitizing the information. The survey is now available in pdf format and is registered with the Georgia Archaeological Site File (GASF). The survey data were easy to access and very detailed. I chose this survey because it has data from a variety of sites that provide a watershed-level detail that allows for larger land-use pattern observations. To my knowledge, this thesis is a first attempt to synthesize the potential Paleoindian and Early Archaic period information contained in this survey.

4.2 The Di-Lane Plantation Collection: Sites and Artifacts

The Di-Lane survey data is unique out of the three collections analyzed herein. It is not an extensive study of one particular site but a large-scale and generalized picture of an area of the county conducted by professional archaeologists in the recent past. The archaeologists primarily used open and fallow or plowed fields due to these areas' propensity to have high surface visibility thereby making any artifacts present easier to find. When located, artifacts were flagged. In areas of limited surface visibility, STs were dug at 30 m intervals. Using these field methods, the researchers defined a site as any that had either of the following: > five artifacts in a surface collection, two positive STs on one landform, any area that had surface and subsurface deposits, or a location where STs yielded three or more artifacts (Braley and Malone 1996). From a hydrological perspective, Di-Lane is situated on the border of two sub-

regional watersheds, Lower Rocky Creek to the north and McCullough Millpond-Buckhead Creek to the south. Figure 4.8 illustrates the collective footprint of the potential Paleoindian and Early Archaic sites recorded in the survey. The sites are delineated by irregular polygons that have a red border.

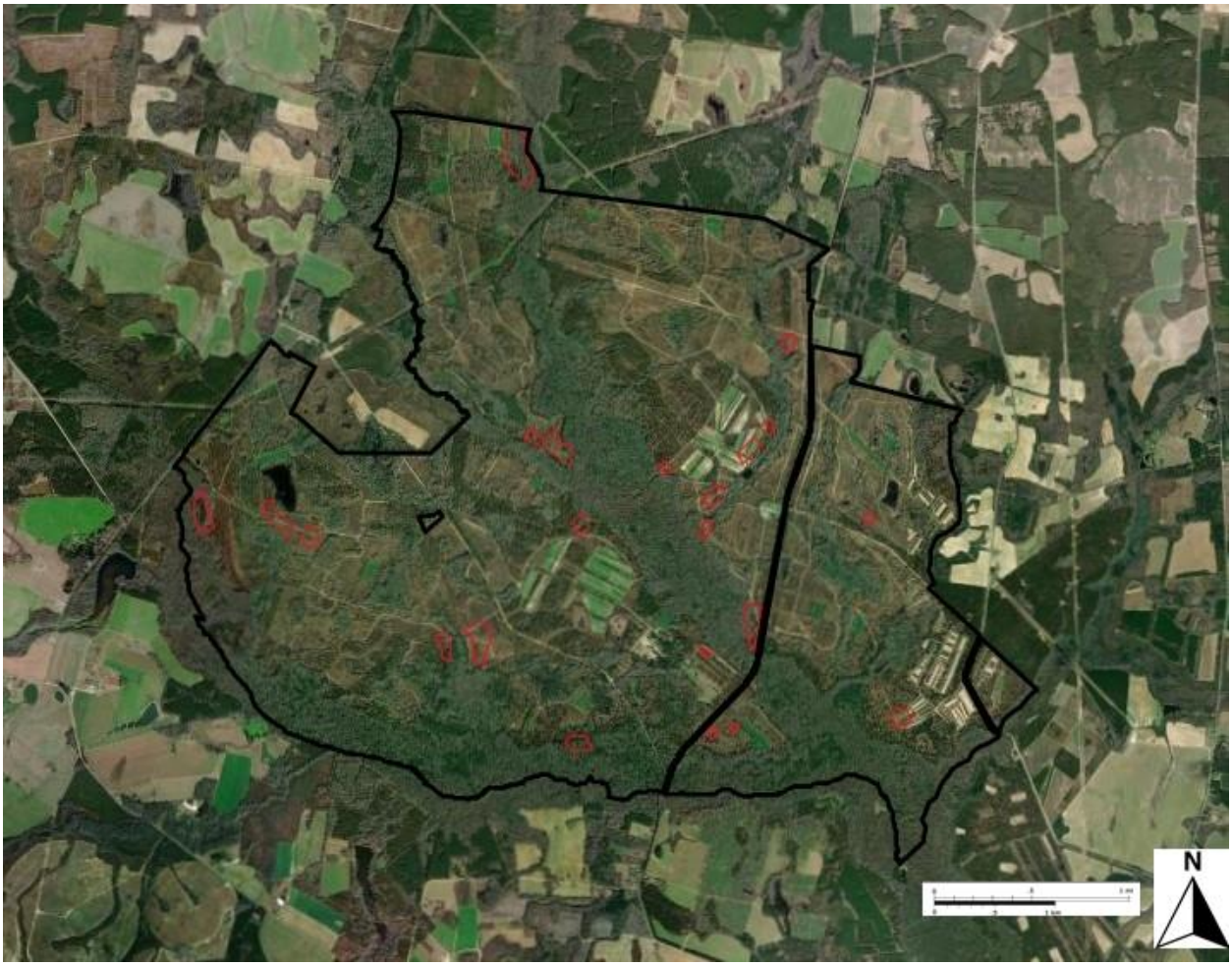


Figure 4-8 Di-Lane plantation aerial with Paleoindian and Early Archaic period sites outlined in red (ArcGIS 2023)

This map is presented to visually orient the reader but does not provide any analytical context as the landscape shown represents modern land-use applications and management.

Figure 4.9 is a topographical map and shows the potential Paleoindian and Early Archaic period sites as they appear at their various elevations.

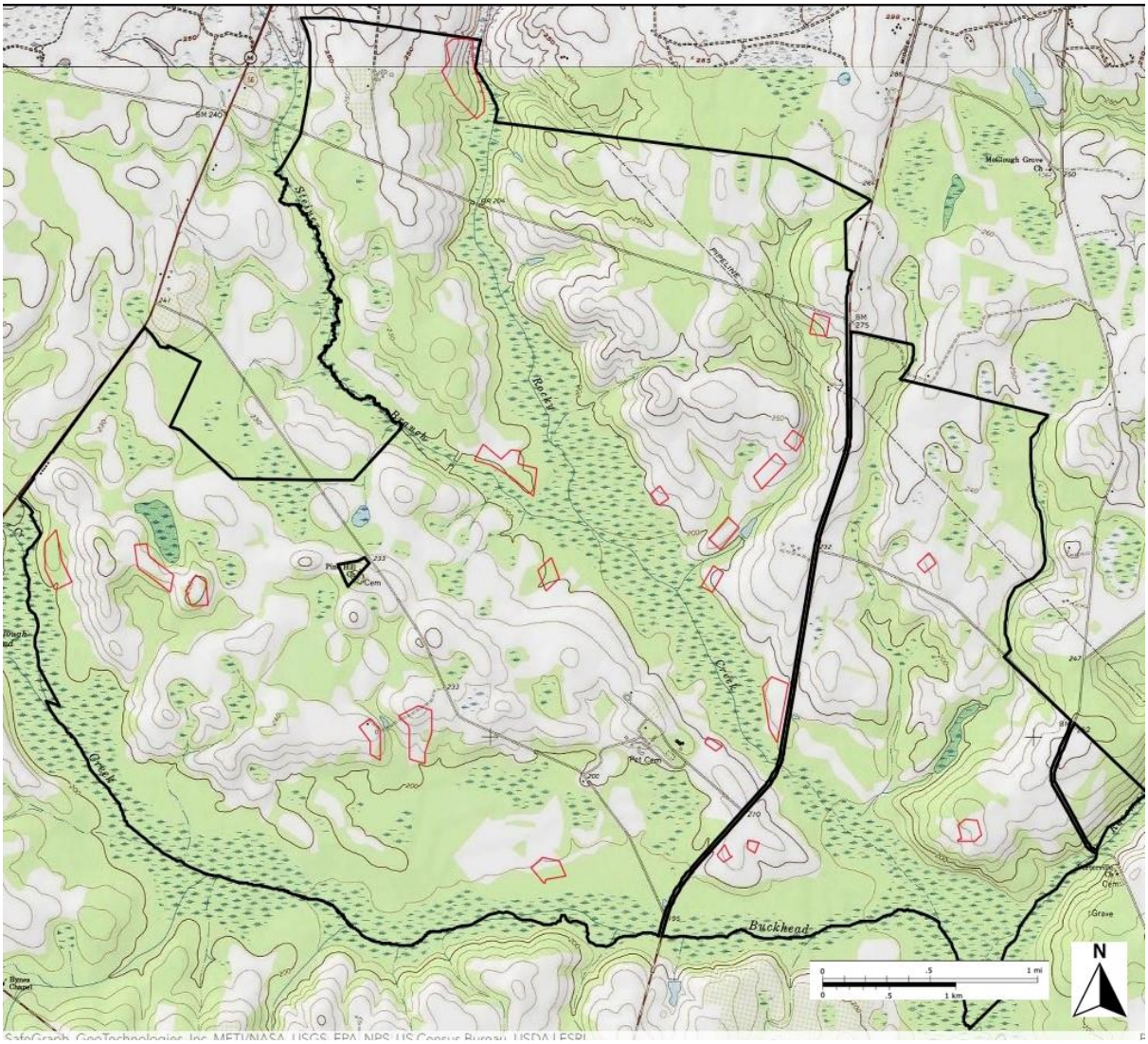


Figure 4-9 Topographical map of Di-Lane plantation with Paleoindian and Early Archaic sites outlined in red (ArcGIS 2023)

Out of the 280 archaeological sites identified on Di-Lane Plantation, 21 have potential Terminal Pleistocene and/or Early Holocene material. Except in the case of one diagnostic artifact, the Paleoindian designation at Di-Lane is based on artifact patination and, thus, not definitive. A patina is a discoloration on the surface of an artifact and can be caused by the

permeability of the raw material, temperature, soil chemistry, and other factors (Kelly and Hurst 1961). Patination can certainly indicate age of an artifact's relative exposure over time, however it is not absolute and at best a corroborating indicator used with other, more concrete, contextual and typological determinants. This has been verified in the field and even two halves of the same artifact, when broken and recovered can exhibit different degrees of patination (Norwood 1980). I will not go into the details of each individual site from the Di-Lane survey, but rather highlight five sites that have unique aspects that delineate them from the rest.

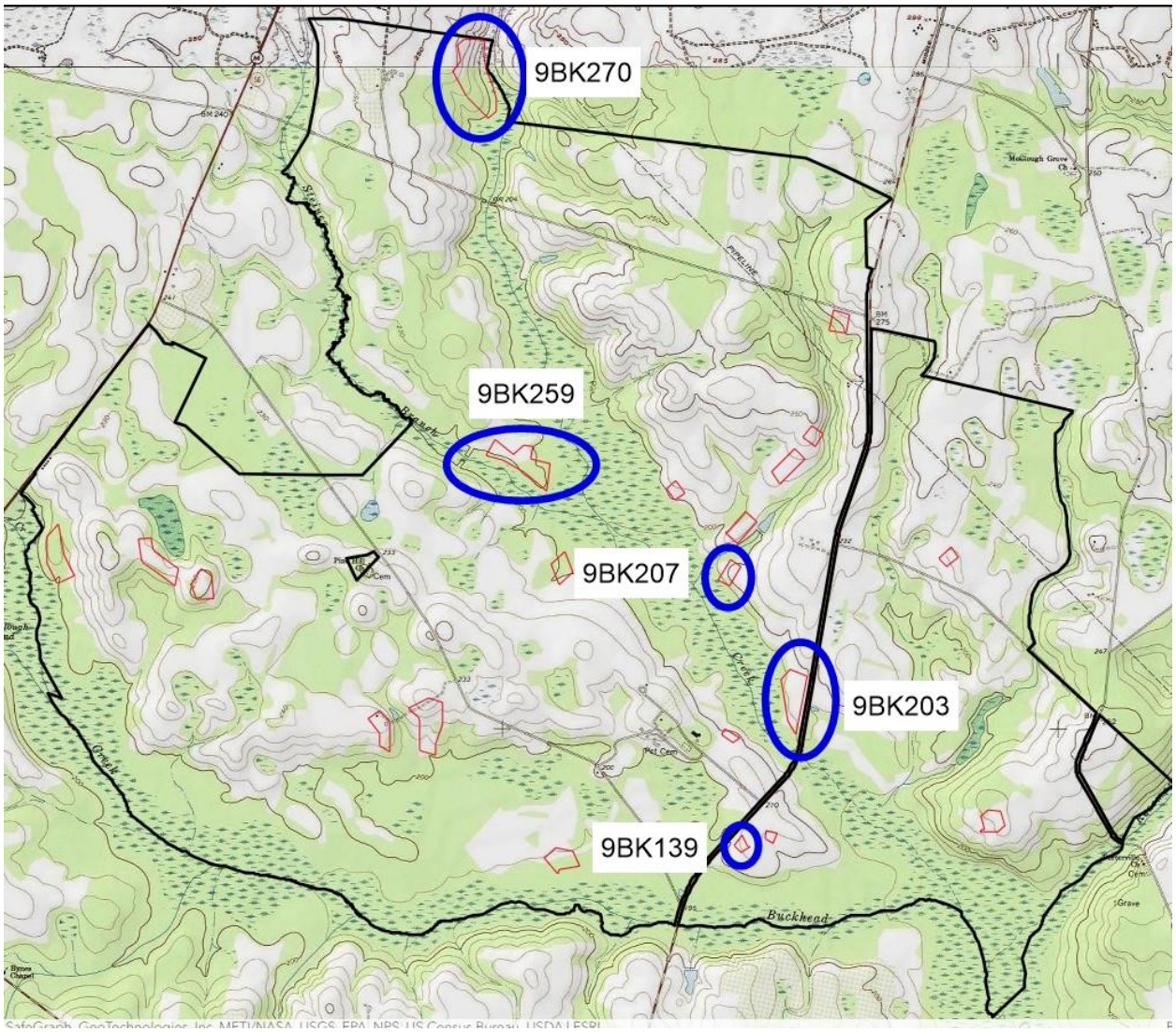


Figure 4-10 Di-Lane Plantation with the five sites labeled and circled in blue

Site 9BK203 is a large site in the southeast corner of the central portion of the plantation measuring 420 m x 150 m. It has gently sloping topography and is located over the Rocky Creek floodplain 50 m away. The floodplain is 3 m below the site which has an elevation of 58 masl. For reference all sea levels are relative to the average mean sea level (masl). The soil profile from shovel tests showed gray-brown sandy loam from 0-30 cm, light brown loamy

sand from 30-70 cm, and pale gray and brown sandy loam interspersed with gravel comprised of chert down to 90 cm. Eleven STs were excavated, all of which were positive. This location has chert resources on-site and yielded a multitude of artifacts. There were not artifacts diagnostic of the Early Archaic, but several bifaces and preforms were extracted from the lowest strata which implies an association with this time period. The activity at this site is indicative of a quarry use, however a limited one (Braley and Malone 1996).

Site 9BK139 is 100 m x 100 m and situated on a board ridge base at 61 masl in the southwestern corner of the eastern portion of the plantation. It is 3 m above a swampy area fed by Buckhead Creek. The closest viable water source is a Carolina Bay 200 m away. Twelve STs were excavated with four yielding material. The soil make-up was light gray-brown sand from 0-30 cm, light brown sand from 25-80 cm, and yellowish red sandy clay down to 100 cm. Most of the STs produced lithic reduction flakes with one heavily patinated, Early Archaic point found on the surface. This site is 500 m east of the chert source found at site 9BK203. The findings indicate some later stage tool reduction and maintenance took place there. This implies some tool use at the site which is potentially indicative of a temporary encampment (Braley and Malone 1996).

Site 9BK207 is located on an upland knoll and measures 100 m x 120 m. It sits at an elevation of 61 m, 3 m above and 50 m away from a tributary of Rocky Creek. The site had brown sandy loam 0-30 cm, yellowish-brown sand from 30-70 cm, and pale brown sandy silt loam to 80 cm. When first surveyed the site was in a relatively clear fallow field that allowed extensive surface collecting to take place. Five STs were also dug, four of which were positive. This site was returned to later and divided into northern and southern halves. A second surface

collection took place and the two areas with the highest artifact densities were marked. A 2 m x 2 m test unit was excavated in each of these high-density areas. These test units were excavated down to 100 cm where they reached sterile subsoil. Finds from this site were from all known time periods. Germane to this thesis, there were two points with a lanceolate morphology potentially indicating a Paleoindian presence, and several Early Archaic notched points. This is one of the most densely occupied sites in the Di-Lane survey (Braley and Malone 1996).

Site 9BK259 is another relatively large site in the middle of the central portion of the survey area. The site is 360 m x 300 m and located on the end of a ridge overlooking the confluence of Rocky Creek and the Steiner Branch, which are 3 m below and 10 m away. The site sits at an overall elevation of 61 masl. Soil profiles consisted of gray brown loamy sand from 0-20 cm, yellowish brown sand, with intermittent gravel from 20-90 cm, and either pale brown sand or yellowish red sandy silt to 100 cm. Thirty-two of the 38 STs were positive. There were preforms, cores, scrapers and other general tools located that suggested an Early Archaic occupation. There was also a metavolcanic biface recovered which is a non-local and more rarely encountered lithic material for the area (Braley and Malone 1996).

Site 9BK270 is another very large site at the northern extent of the central portion of the survey. The site is 650 m x 360 m and 67 masl. The closest water source is a Carolina Bay 10 m away and at 3 m lower elevation than the site. This site sits on a bluff with a spring and several chert outcroppings. Soil profiles consisted of gray brown sandy loam from 0-25 cm, light brown sand from 25-80 cm, and reddish-brown sand with occasional gravel to 100 cm. Of the 48 STs, 37 were positive. There were high-concentrations of artifacts recovered at this location. For

example, one shovel test produced 172 artifacts. There were several diagnostic artifacts from all phases of the Archaic as well as the Woodland and Mississippian periods. The assemblages indicate the most intensive quarrying activity of any other site in the survey. This site appears to be a perennial and popular quarry location that was never fully exhausted (Braley and Malone 1996).

Collectively the potential Paleoindian and Early Archaic period sites exhibited various consistencies. The survey delineated eight separate terrain features associated with settlement: benches/terraces, upland flat/ridge tops, ridge noses, upland knolls, rises in the floodplain, upland saddles, upland slopes, and toe slopes. The vast majority of Paleoindian and Early Archaic sites, >75%, were situated on upland features. Paleoindian sites were all within 100 meters of water. Most Early Archaic sites were within 50 meters of water but some were as far as 300 meters from the nearest water source. Paleoindian sites were located at elevations of only 6 meters above water sources and most Early Archaic sites were at 3 meters but extended up to 15 meters. Paleoindian sites were exclusively located above larger streams and Carolina Bays while Early Archaic sites were located near all types of water sources but mostly around smaller streams and Carolina Bays (Braley and Malone 1996).

Table 4-1 summarizes the collective data from the survey that addresses the typable points and tools from the Paleoindian and Early Archaic temporal periods. Tables 4-2 and 4-3 provide physical descriptions of the sites and the generalities of archaeological work at each site, respectively. Figures 4-1 and 4-12 are taken from the Di-Lane survey report and contain examples of Late Pleistocene and Early Holocene tools, respectively.

Table 4-1 Summary of Paleoindian and Early Archaic period artifacts recovered conducting the Di-lane survey

Culture-Phase	Diagnostic Artifacts	# Sites
Paleoindian	Lanceolate point preform	1
Paleoindian/Early Archaic	Scrapers/Tools	14
Early Archaic	Taylor point	4
	Palmer & Kirk points	2
	Bifurcate stemmed point	2
	Basally notched point fragments	4
Culture-Phase	**Total Artifacts (N)**	**% of Total (survey)**
Paleoindian/Early Archaic	15	10.2%
Early Archaic	12	7.6%

Table 4-2 Di-Lane Plantation Paleoindian and Early Archaic period site descriptions

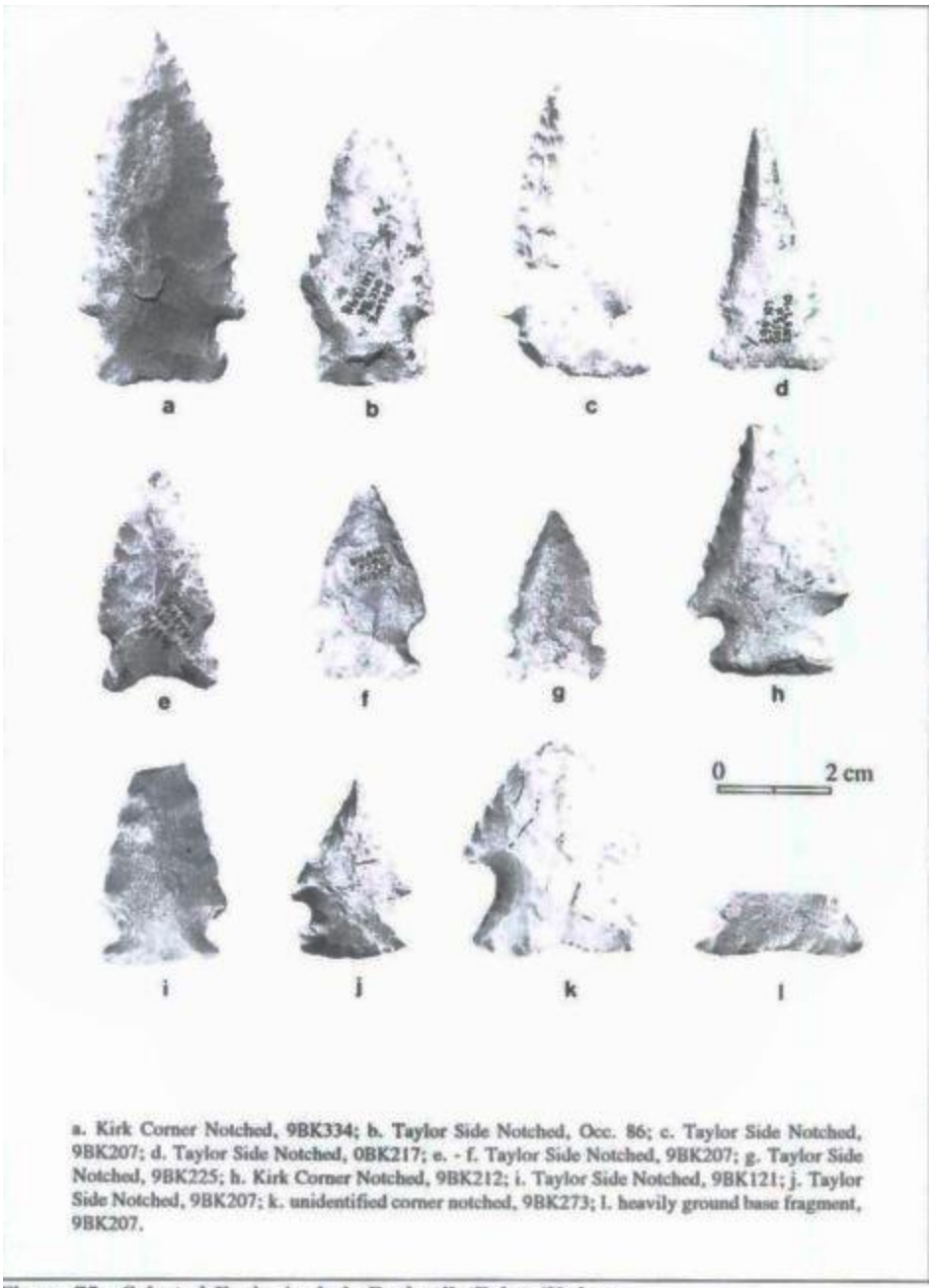
Site	Description	Area	Elev.	Distance to and water source
9BK121	Plowed field on ridge	75m x 60m	61 m	3m, Rocky Creek
9BK203	Hillside, chert source	420 m x 150m	58 m	50m, Rocky Creek floodplain
9BK137	Fallow field on ridge	60m x 45m	64 m	6m, spring, Rocky & Buckhead Creeks
9BK139	Ridge	100 m x 100m	61 m	200m, Carolina Bay
9BK169	Wooded knoll	120 m x 90m	73 m	250m, Rocky Creek
9BK207	Upland knoll	100 m x 120m	61 m	50m, Rocky Creek tributary
9BK212	Cleared field	40m x 40m	64 m	50m, Rocky Creek
9BK215	Sloping ridge	300 m x 100m	67 m	100m, Rocky Creek
9BK217	Sloping ridge	130 m x 100m	72 m	30m, Rocky Creek tributary
9BK225	Field on ridge	270 m x 90m	64 m	5m, Rocky Creek tributary

9BK233	Field	40m x 40m	73 m	100m, Carolina Bay
9BK242	Ridge tip	120 m x 120m	72 m	300m, Rocky Creek tributary
9BK259	Ridge	360 m x 300m	61 m	10m, Rocky & Steiner Branch Creeks
9BK346	Field	150 m x 75m	61 m	100m, Carolina Bay
9BK269	Field	450 m x 275m	73 m	10m, Carolina Bay
9BK308	Ridge	210 m x 75m	70 m	10m, Carolina Bay
9BK270	Bluff, chert source	650 m x 360m	67 m	10m, Carolina Bay, spring also present
9BK273	Field	340 m x 120m	61 m	30m, Buckhead Creek
9BK295	Field, eroded	120 m x 90m	76 m	50m, Carolina Bay
9BK297	Plowed field	240 m x 125m	73 m	30m, Carolina Bay
9BK334	Field	150 m x 90m	55 m	120m, Buckhead Creek

Table 4-3 Di-Lane Plantation artifact summary

Site	Total STs	+ STs	Artifacts Found	Artifact Period
9BK121	19	2	Lithic Scatter, Taylor Point	Early Archaic
9BK203	11	11	Bifaces, Preforms	Early Archaic
9BK137	11	3	Median section serrated point	Early Archaic
9BK139	12	4	Lithic Scatter, Nontypable Point	Early Archaic
9BK169	11	7	Debitage, patnated flake tool	Early Archaic
9BK207	5	4	Lanceolate points, Nontypable points	Pos. Paleo, Early Archaic
9BK212	7	0	Debitage, Palmer & Kirk point	Early Archaic
9BK215	10	6	Flake tools, scrapers	Early Archaic

9BK217	3	0	Lithic scatter, Taylor point	Early Archaic
9BK225	9	5	Taylor point	Early Archaic
9BK233	1	0	Patinated reduction flakes	Early Archaic
9BK242	10	5	Patinated end scrapers	Early Archaic
9BK259	38	32	Metavol biface, cores, preforms	Early Archaic
9BK346	11	9	Side notched point	Early Archaic
9BK269	16	12	Flakes, scraper	Early Archaic
9BK308	9	5	Patinated tools, flakes	Early Archaic
9BK270	48	37	Diagnostic Early Archaic points	Early Archaic
9BK273	24	16	Endscraper, Corner-notched point	Early Archaic
9BK295	5	0	Patinated endscraper	Early Archaic
9BK297	10	1	Patinated endscraper	Early Archaic
9BK334	12	7	Palmer & Kirk points	Early Archaic



a. Kirk Corner Notched, 9BK334; b. Taylor Side Notched, Occ. 86; c. Taylor Side Notched, 9BK207; d. Taylor Side Notched, 0BK217; e. - f. Taylor Side Notched, 9BK207; g. Taylor Side Notched, 9BK225; h. Kirk Corner Notched, 9BK212; i. Taylor Side Notched, 9BK121; j. Taylor Side Notched, 9BK207; k. unidentified corner notched, 9BK273; l. heavily ground base fragment, 9BK207.

Figure 75. Selected Early Archaic Projectile Points/Knives.

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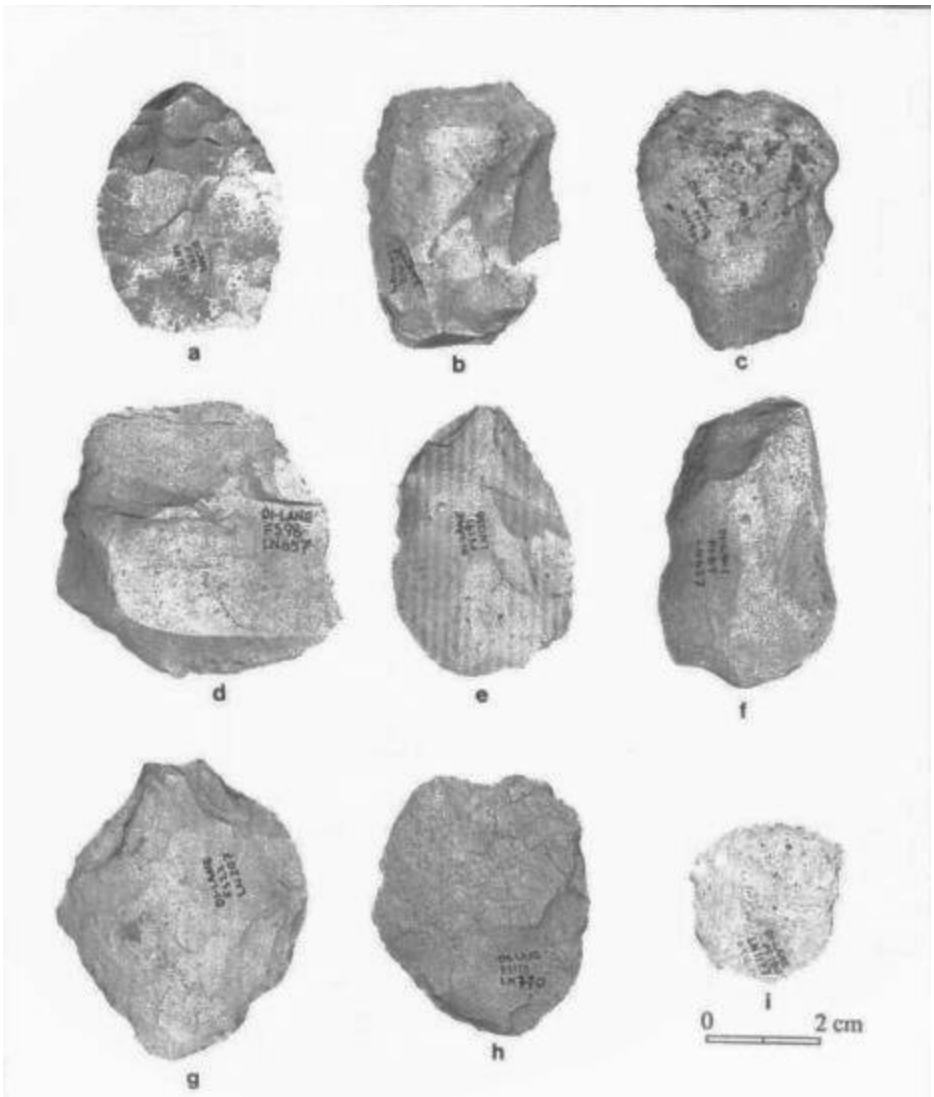
Figure 4-11 Early Archaic points from the Di-Lane survey (From Braley and Malone 1996: Fig. 75)



a. Possible Paleoindian preform, 9BK207; b.- i. Scrapers.

Figure 73. Selected Examples of Paleoindian/Early Archaic Tools.

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Figure 4-12 Early Archaic and Paleoindian tools from the Di-Land survey (From Braley and Malone 1996: Fig. 73)

4.3 The Roland Steiner/Davis Plantation Collection: Introduction and History

Roland Steiner is one of the unsung heroes of Georgia archaeology. Born in 1839, Steiner went to Princeton University and then medical school in Richmond, Virginia. He was conscripted by the Confederacy and served during the Civil War, after which he settled down in Burke County, Georgia and made a healthy living as a farmer (Elliot 2010: 12). Agricultural income allowed him to pursue his passion which was piecing together the prehistoric record of his local area. This included Columbia County, which borders Burke County to the north, and even a foray well out of his home territory to the Etowah mounds in Bartow County, in northwestern Georgia, and other, now famous, archaeological sites around the state. Steiner kept excellent records, given the standards of the time, which included maps. The only issue is that these were created around the turn of the twentieth century and lack the absolute locational accuracy that we have the ability to produce today (Elliot 2010). That being the case, through the work of archaeologists K.C. Jones, Dan Elliot, and Jerald Ledbetter, the sites represented in Steiner's Burke County collection have been positively identified but as of the time of this writing, not ground-truthed (Jones et al. 2016).

In several phases, between 1891 and 1904, Steiner sent approximately 100,000 artifacts to the Smithsonian Museum. This was the largest-ever collection of artifacts sourced from a single individual. During this time, Steiner had direct correspondence with almost every major name in the field of archaeology and anthropology in the United States. These included Franz Boas, William Henry Holmes, Charles C. Jones, and Thomas Wilson (Elliot 2010: 4). Steiner had vigorous communications with the museum and was avid in ensuring the proper curation of

anything he sold or sent there. Unfortunately, after his passing, the museum shelved Steiner's collections and they were largely forgotten (Elliot 2010: 5).

By the 1940s, the Smithsonian had no real institutional memory of Roland Steiner the man, however materials from his collection were gaining attention. When the Steiner collection initially came into the museum's possession there was no knowledge of Paleoindian period hunter-gatherers and therefore there was no typology that would distinguish projectile points from this period versus any other (Trigger 1996: 278). Caldwell, the progenitor of the PFE model detailed earlier, and others expressed great interest in the Paleoindian period projectile points Steiner had found in Burke and Columbia Counties (Elliot 2010: 5). Once it was realized that Steiner had recorded the sites that provided provenience for his collection, efforts were made to locate them. This was especially exciting because Steiner's collection was almost exclusively surface finds. Thus, if his sites could be located and surveyed with modern archaeological field methods, there was a great potential that much more evidence of the Paleoindian and Early Archaic period occupations could be uncovered. Efforts in this quest proved rather fruitless, however, as the more famous sites could not be directly located at that time, although their general vicinity could be identified (Elliot 2010: 5).

The Smithsonian did not realize how immense this collection was until it modernized its inventories due to the advent of computers. Dan Elliot visited the museum for a month in the early 1990s to try and discover the scope of Steiner's contributions. He uncovered the vastness of the Steiner collection and also that large amounts (10,000+) of artifacts from Roland Steiner had been sent to at least three other institutions: The Field Museum in Chicago, the American Museum of Natural History in New York, and the Peabody Museum in Cambridge,

Massachusetts. Of note is that some portions of Steiner's collection are actually listed as the "Peabody Collection" in certain accession records because international financier George Foster Peabody purchased this material from Steiner before he passed away.

Due to the monumental efforts of Dan Elliot, K.C. Jones, and Jerald Ledbetter, the Smithsonian-curated portion of the Steiner collection is now well understood. The Paleoindian period points have been photographed, recorded, and added to PIDBA. Therefore, they can be studied with relative ease. Jones has also shared with me her research and images she took of the collection. Without her help and generosity I would not be able to interpret or have access to such a storied and valuable collection to study. This collection is not only of great importance to understanding hunter-gatherers in Burke County, but is also an incredible trove of data that has many potential implications to the archaeological record of the Southeast.

4.4 The Roland Steiner/Davis Plantation Collection: Site and Artifacts

Although Roland Steiner supplied a great deal of artifacts to the Smithsonian and other institutions from sites around the state, the collections he bequeathed from Burke County had one origin point. This farm, known as Davis Plantation/The Evans Place, is situated near Di-Lane plantation in the southeastern portion of the county. In order to understand the artifacts in context, however, this location needs to be understood and analyzed as a prehistoric site and not in historic terms, or, in other words, how the creators of the artifacts framed their environment and not how Steiner utilized or perceived it.

Figure 4-13, below, is a redrafting by Jones and Ledbetter of a hand-drawn map made by Steiner of Davis Plantation. This map is courtesy of the Smithsonian National Anthropological

Archives and K.C. Jones, Dan Elliot, and Jerald Ledbetter. This map and the analysis of it and related documents, as well as representative examples of the Steiner collection itself, were presented by Jones, Elliot, and Ledbetter as a paper at the 73rd Annual Southeastern Archaeological Conference on October 29, 2016.

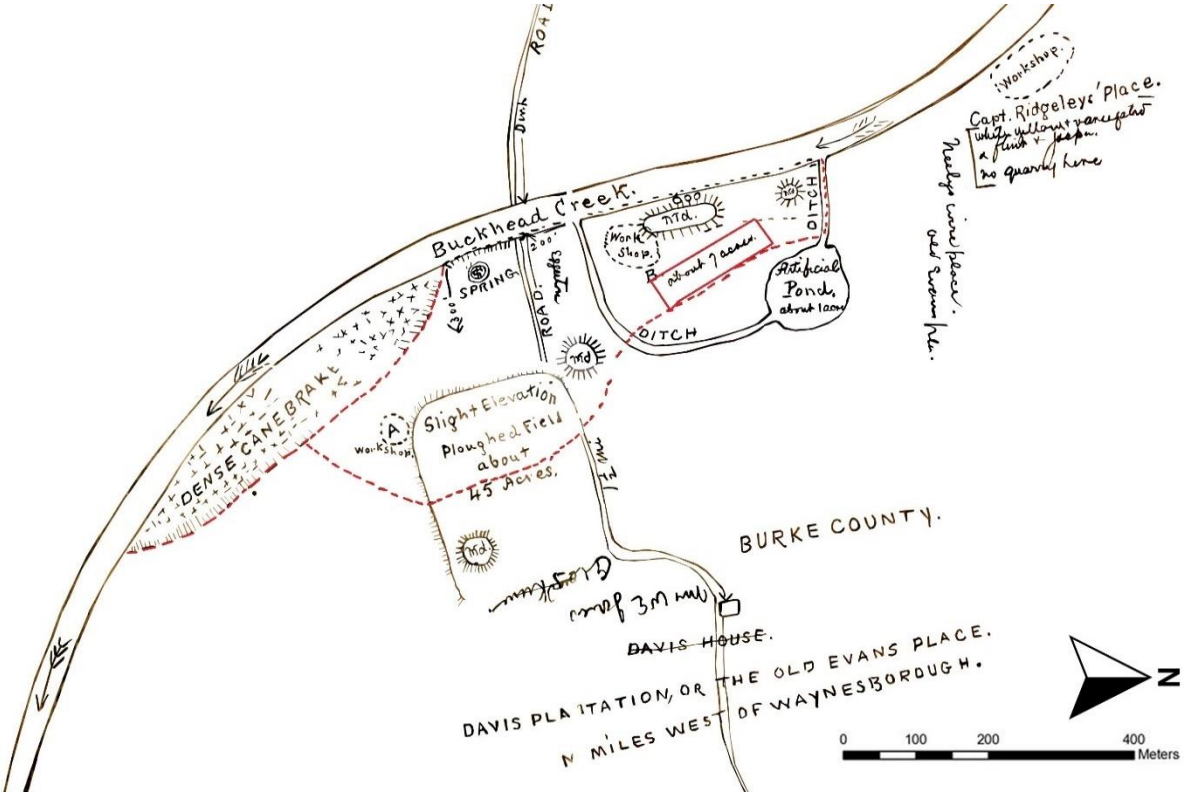


Figure 4-13 Redraft of Steiner's map of Davis Plantation. The red dotted line indicates the estimated seven acres where the artifacts were procured (From Jones et al. 2016)

Jones, Elliot, and Ledbetter pieced together the known maps and historical documents pertaining to the site and tentatively located it. Below, figure 4-14 is the result of their diligence. It is Steiner's map overlayed on an aerial image of where they roughly believe the site to be located.

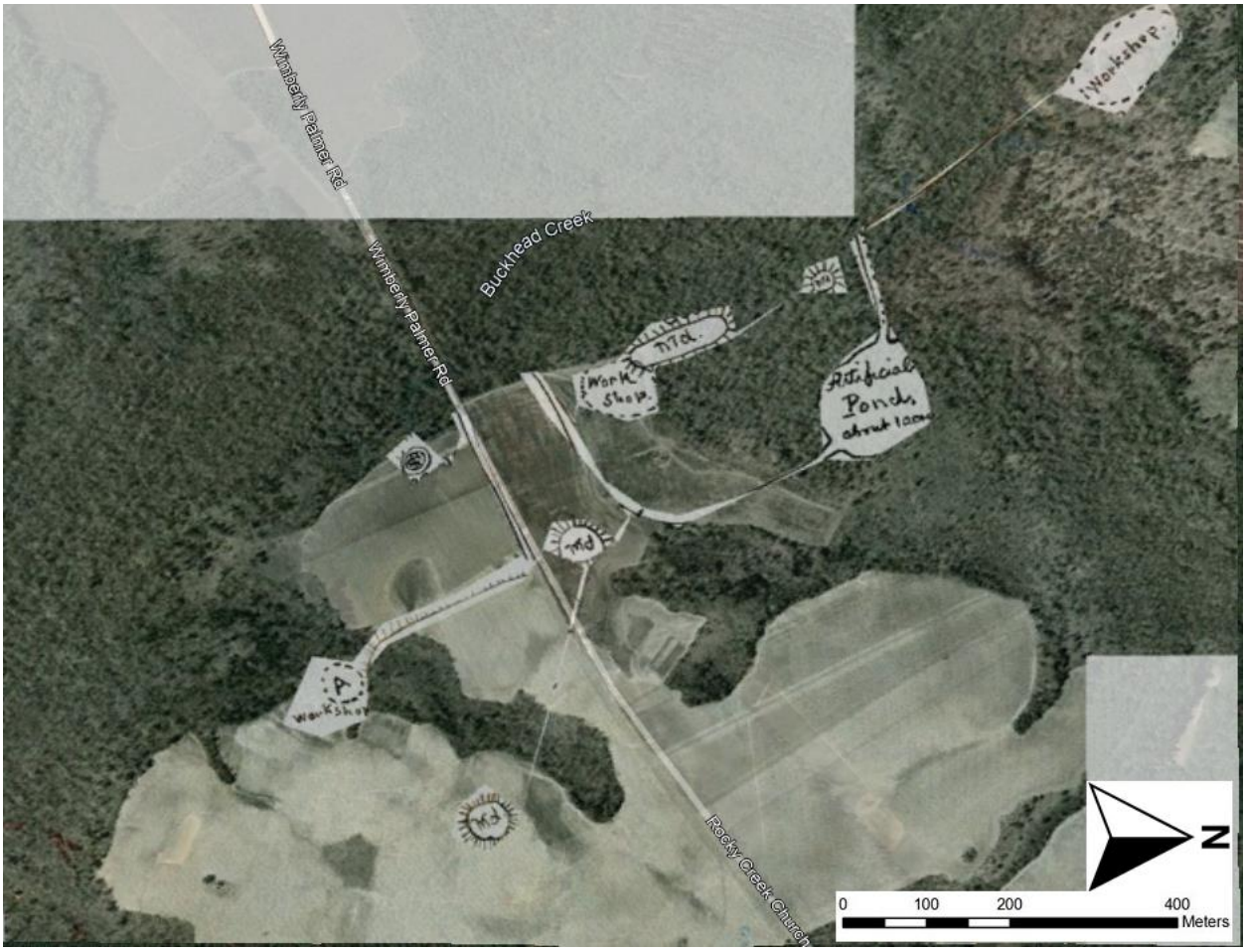


Figure 4-14 Jones, Elliot, and Ledbetter's redrafted map overlaid on an aerial image (From Jones et al. 2016)

The topography and placement on Buckhead Creek matchup extremely well with Steiner's description and the other pertinent historical information they obtained. If not perfectly accurate, this location is at least in the basic area of the site and, in a worst-case scenario, offers a facsimile of the type of location where the vast trove of artifacts was found. For the purposes of this thesis, I will use this location as the most probable representation of Davis Plantation. The figures below are maps of the site.

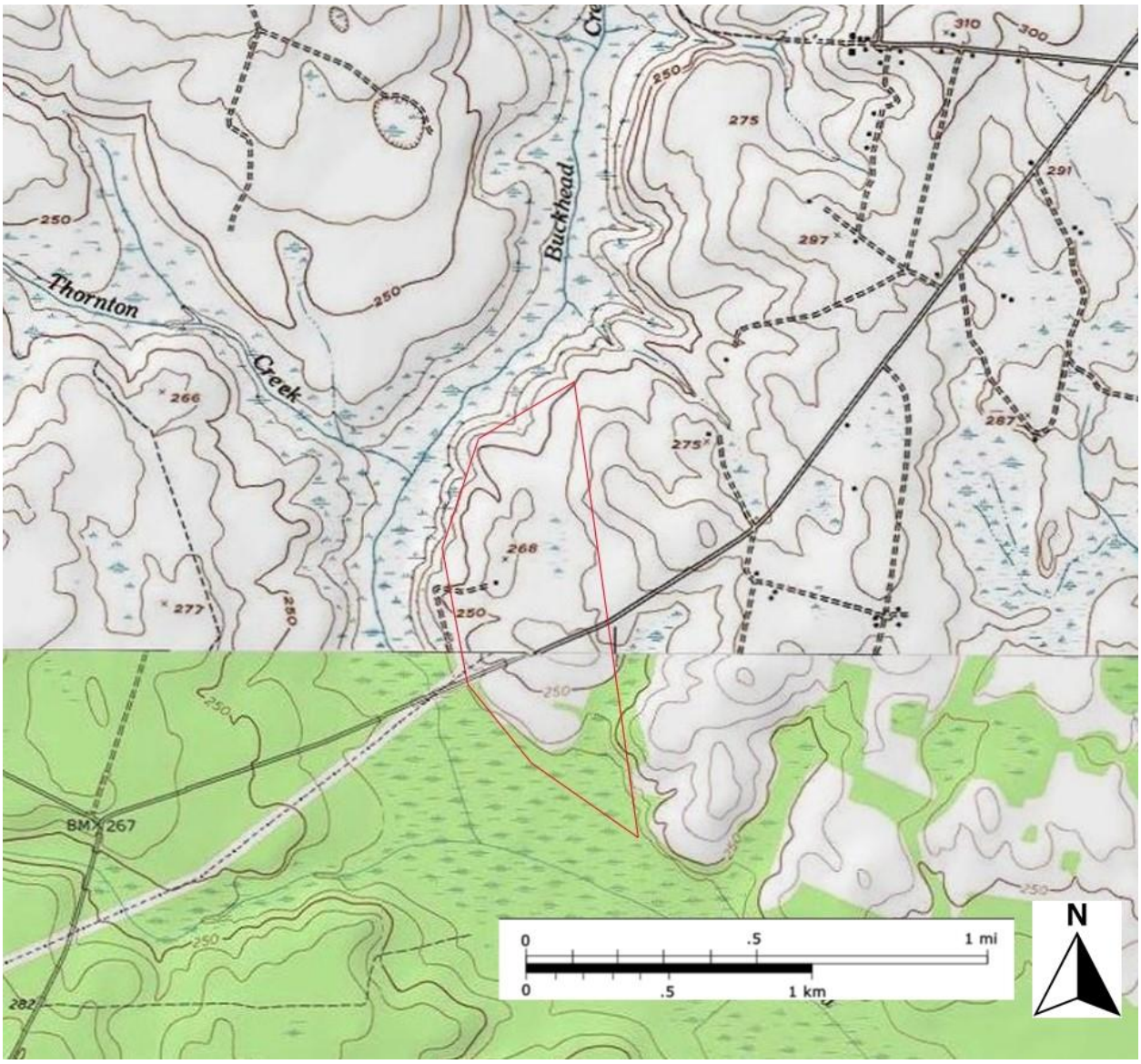


Figure 4-15 Approximation of the Davis Plantation footprint topo (ArcGIS 2023)

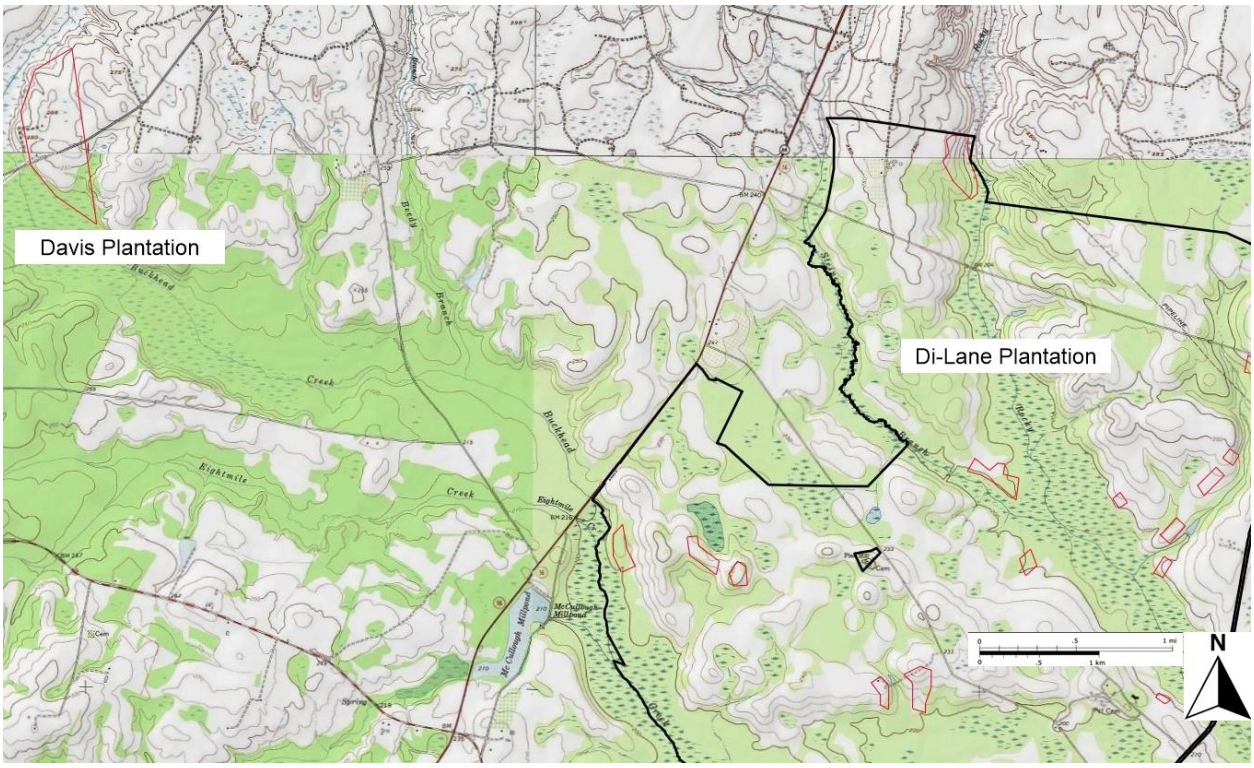


Figure 4-16 Davis Plantation's location with regard to Di-Lane Plantation (ArcGIS 2023)

One of the most striking things about the Steiner collection is that it is comprised entirely of surface finds from a small area. Elliot and Jones analyzed a total of 6,542 artifacts, 5,412 of which were diagnostic. Of these, 120, or 2.2%, were from the Paleoindian period and 796, 14.7% from the Early Archaic period. Of these, two Paleoindian artifacts and ten Early Archaic artifacts were made from Ridge and Valley chert (Figures 4.22 and 4.23). Other materials present were evidenced by three Paleoindian period metavolcanic points, one Paleoindian and three Early Archaic period daltonite (orthoquartzite) artifacts, one Early Archaic period quartzite artifact, one Paleoindian period Piedmont Silica artifact and two Early Archaic period quartz points. The rest of the collection, around 99%, was made from locally available

chert (Jones et al. 2016). A breakdown and general representation of these artifacts can be found in Appendix B.

As the Steiner collection, even when broken down into specific, earlier time periods, is quite large, figures 4.17-4.24 serve as a representative example of the Paleoindian and Early Archaic period artifacts. These figures are courtesy of the Smithsonian National Anthropological Archives and K.C. Jones. Of note, Figure 4-17 contains a metavolcanic Paleoindian period point labeled “361.” One artifact in the collection is a Haw River projectile point, an avocationalist term (Figure 4-21). This is a very rare artifact but currently the subject of debate as to whether the morphology warrants a separate typology and, thus, remains a provisional, collector category. According to PIDBA, there have only been 26 recorded Haw River projectile points, all from Georgia, with 15 reported from Burke County. Future research will have to be conducted to determine the validity of this typology, however.

Figure 4-17 Sample of Paleoindian period points from the Steiner collection (from Jones, personal communication, 2022)

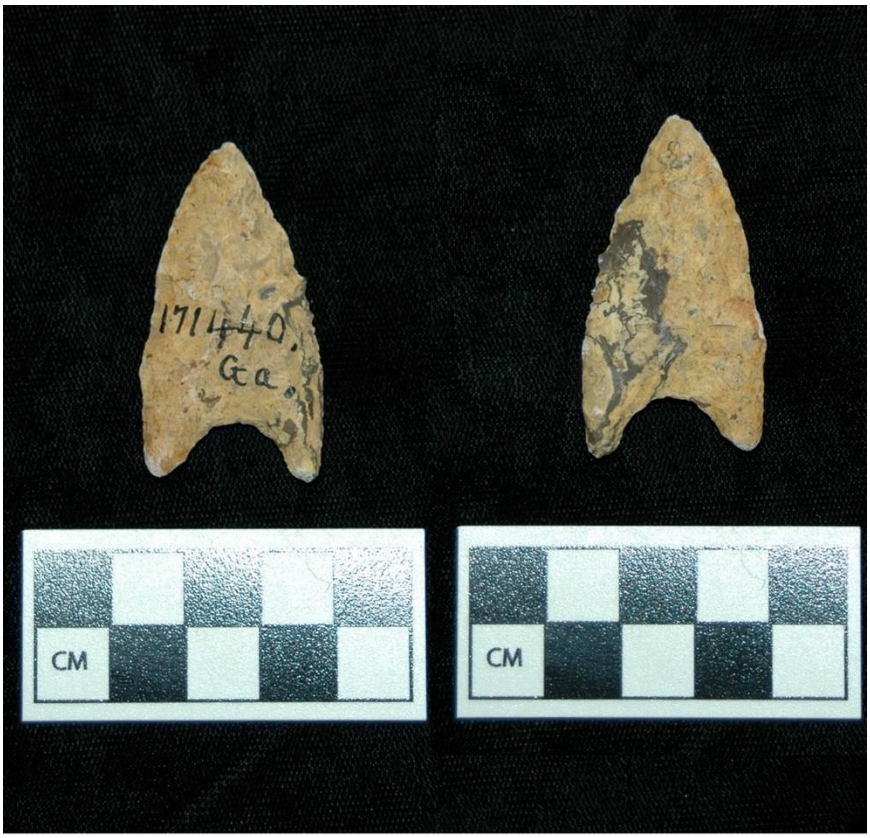


Figure 4-18 Front and back view of a Wheeler, unfluted Paleoindian period point. This is a closer view of point "351" in figure 4.17 (from Jones, personal communication, 2022)

Figure 4-19 Close up view of a heavily used, unfluted Paleoindian period point from the Steiner collection (from Jones, personal communication, 2022)

Figure 4-20 Close up view of a potential Simpson or Clovis Paleoindian period point. This point has some degree of fluting but not to the extent of traditional Clovis morphology. From the Steiner collection (from Jones, personal communication, 2022)

Figure 4-21 Haw River point from the Steiner collection (from Jones, personal communication, 2022)

Figure 4-22 Three Early Archaic period Hardaway points from the Steiner collection that exhibit various levels of use-wear (from Jones, personal communication, 2022)

Figure 4-23 A close up view of a heavily worn point that could be an Early Archaic period Hardaway point or a transitional Paleoindian to Early Archaic period Dalton point. It is made from non-local Ridge and Valley chert (from Jones, personal communication, 2022)

Figure 4-24 Early Archaic period points. Top row (L-R): non-typable, fully exhausted small point, Palmer point, potential Paleoindian period point that was reduced to a drill. Bottom Row (L-R): heavily used Kirk corner-notched, either a Kirk corner-notched or a Lost Lake point, Palmer point. All are made from non-local Ridge and Valley chert (From Jones 2023: Figure 5.6)

4.5 The Gordon Midgette/Theriault Collection: Introduction and History

Gordon Midgette worked at various archaeological sites in Georgia throughout the latter half of the 20th century. Midgette did extensive work at the Theriault site (9BK2) and conducted excavations there in the late 1960s. This excavation was to serve as the basis of a master's thesis that never came to fruition. This site is well-known for the volume of artifacts it produced. Some of these were from the Paleoindian and Early Archaic periods. Unfortunately, Midgette did not publish or disseminate detailed records and passed away in 2014. Carol Midgette, his widow, took custody of his writings and remaining artifacts after he died. She has given a portion of the collection and written material to the University of Georgia (UGA) as well as to Georgia State University (GSU). I have been in regular contact with Mrs. Midgette, and she continues to find and hand over more and more of her late husband's work. She is agreeable to allowing me to use any information obtained from analyzing the collection as this helps share Mr. Midgette's important contribution with the larger archaeological community. As mentioned above, these data have been largely unanalyzed and have not been published before and their publication makes an important contribution to our understanding of Burke County's early history.

For some of the Paleoindian period points, there are actual physical objects and some are photographed and recorded in Midgette's files. Scott Jones and Jerald Ledbetter also examined Midgette's collection at UGA and recorded the applicable points in PIDBA. But to clarify, those materials are distinct from the ones I analyzed courtesy of Ms. Midgette. They are tied back to the site by an alphanumeric label. This either appears on the artifact itself or on the photographs of the artifact. Richard Moss also visited UGA in the fall of 2022 for a separate

project involving Midgette's work and photographed the collection while he was there. He was kind enough to share those photographs with me to help with this thesis. The Theriault material in GSU's possession was donated by Carol Midgette along with several documents in 2020. I have had the privilege to be able to inventory and catalog these artifacts for the purposes of using the collection to partially inform this thesis.

Midgette's work at the Theriault site was preceded by an excavation undertaken by Dr. William Edwards from 1966-1970 (Brockington 1971). This undertaking was cut short prior to completion. What is known about Edwards' activities at the site is summarized in a report by Paul Brockington. It should be noted for the purpose of disambiguation that this is a report by Brockington prior to his enrollment in graduate school and not a report from the prolific Cultural Resource Management (CRM) firm, Brockington and Associates, which he later founded.

Gordon Midgette's excavations at the Theriault site have remained largely mysterious up to this point. In this chapter I piece together relevant documents in an attempt to create a cohesive narrative of the excavations explicitly focusing on any details that inform the archaeological record of the site and the research questions of this thesis. The most informative document is Midgette's masters thesis draft, tentatively titled "Archaeology of the Waring Site and Related Assemblages in the Central Savannah River Area," of which I have only portions. The other documents are supportive and either serve as cross references to corroborate information from the thesis draft or to add additional information about the site and its disposition post-Midgette's thesis research.

Midgette's notes claim the driving force behind the excavation methods were to salvage sections of the site that had not already been destroyed. Midgette claimed that Reginald "Buddy" Theriault had been digging at the site, a fact that Theriault later admitted, and that Midgette's excavation would concern "what was left of the highest section of the site" that was comprised of "the road and trash pile" (Midgette 1970; The True Citizen 1969). An "arbitrary datum" was established that was measured against the south-western corner of each 5 ft x 5 ft (c. 1.5 m x 1.5 m) grid that collectively comprised the grid system used in mapping the excavation. Figures 4.24 and 4.25, below, are two maps made by Midgette illustrating his excavations in relation to previous work done at the site and a field map showing the location of artifacts that were recovered. Figure 4.26 is a picture taken by Midgette of the site with a note written by Midgette that references a Clovis point in another picture and mentions Buddy Theriault but in no discernable context.

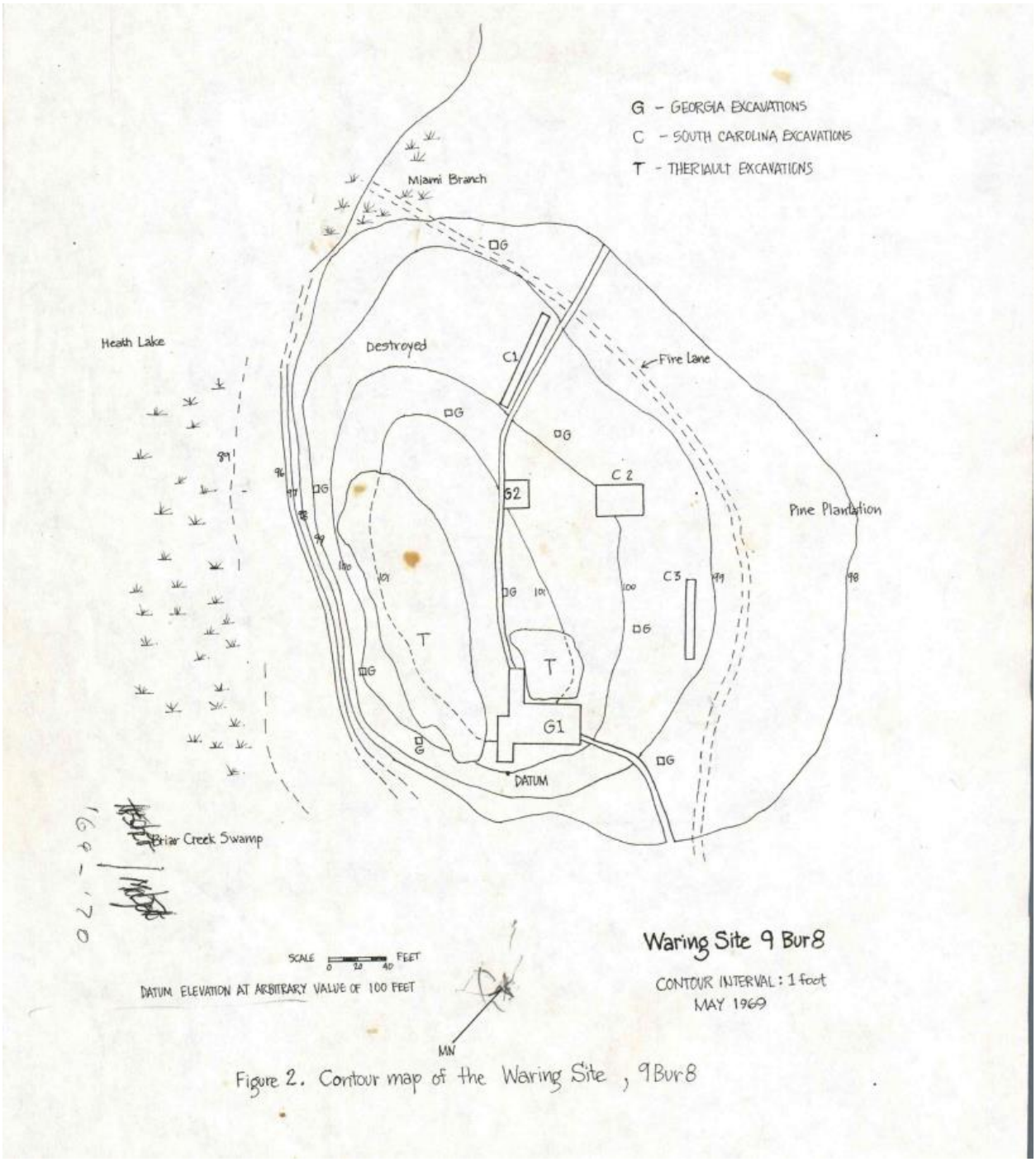


Figure 4-25 Midgette's map of Theriault with all excavation locations noted

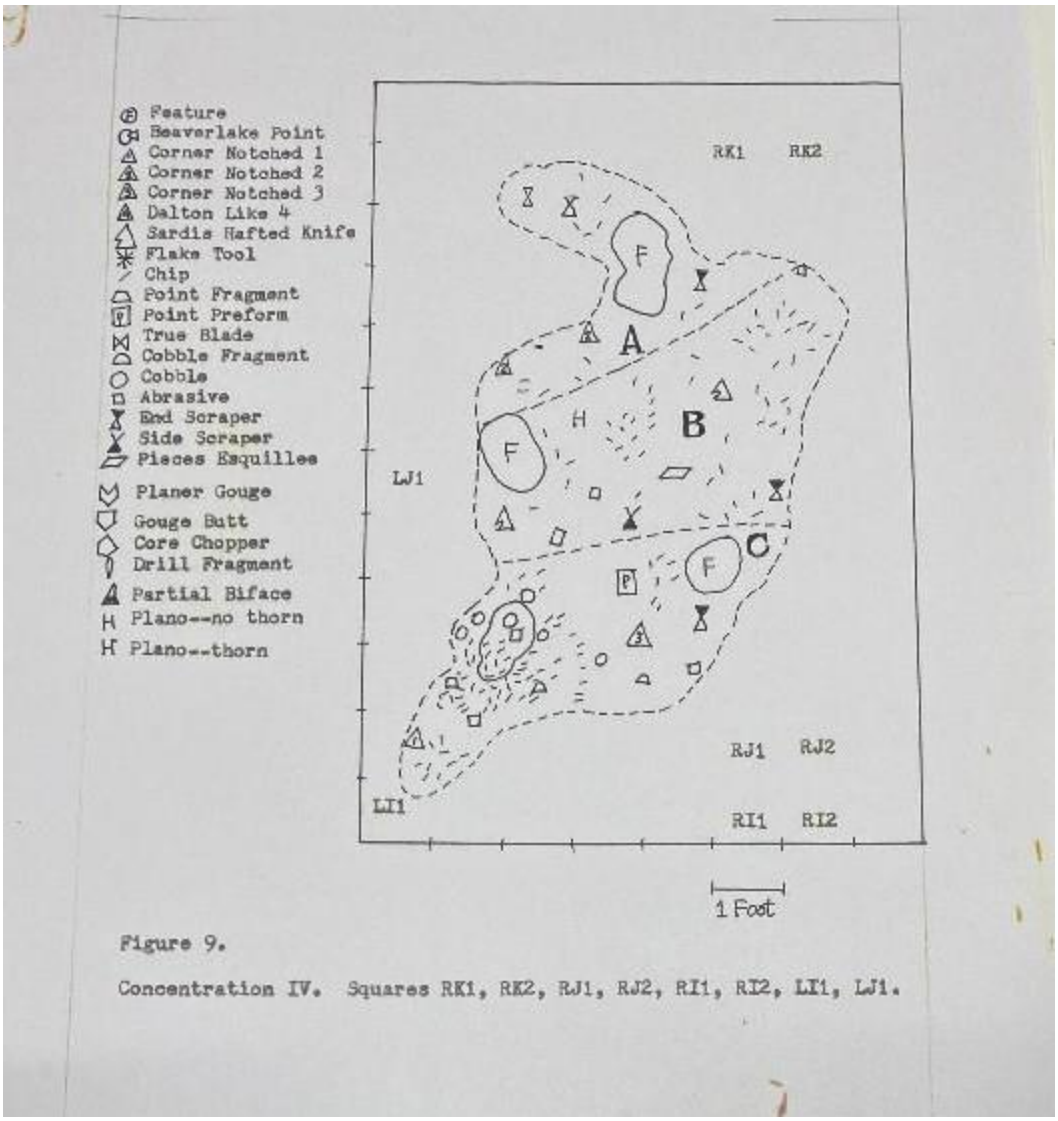


Figure 9.

Concentration IV. Squares RK1, RK2, RJ1, RJ2, RI1, RI2, LI1, LJ1.

Figure 4-26 Midgette's field map with artifacts noted

Figure 4-27 A photograph of the site by Midgette with a hand-written

Midgette notes that Theriault's digging was to the east and west of his grids. He also stated that Theriault's digging had unearthed some Early Archaic and Paleoindian material but was mostly from the Late Archaic in what he described as a "thick blanket…of midden" (Midgette 1970). Others followed in Theriault's footsteps and also dug at the site although it is noted that they invariably kept to the upper levels which contained the extensive Late Archaic deposits. The westerly line of Midgette's grid was disturbed to a depth of 20-30 inches,

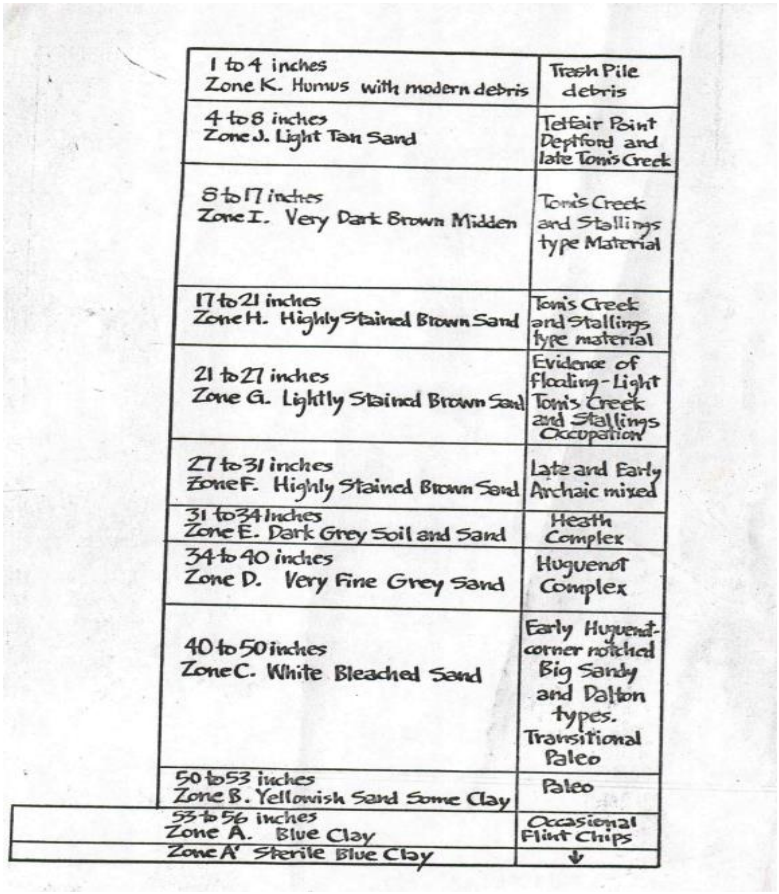
depending on the specific spot. This disturbance essentially had the effect of making this layer a plow-zone and therefore rendered the first 20-35 inches of soil over the grids moot from a stratigraphic perspective. Midgette chose to dig these levels in arbitrary 3-inch intervals (Midgette 1970). Midgette established an undisturbed profile under the Archaic midden that was a "fossil dune surface" that colored the artifacts contained therein in a "chalky white" around "feature 10" (Midgette 1970). The darker midden material underlaid with a fossil dune surface could account for what is shown in the soil profile in Figure 4-27. Once the crew were sure they had exceeded the maximum depth of the disturbed midden they began to sift the contents of the dirt in a ¼ inch screen aided by a "mechanical shaker" (Midgette 1970).

The crew eventually discovered areas of the midden that had not been disturbed by previous digging and stripped these areas horizontally. In July of 1969, a control square was established that was profiled "on all four sides all the way down to the surface of the dunes" (Midgette 1970). This depth was noted as being 18 inches and in all "natural zones" but then the work was curtailed when locals entered the site over one weekend and began or resumed their illicit digging activities. Midgette notes that fortunately these individuals only cared about the Late Archaic layer and "didn't bother with the basal portions of the control" (Midgette 1970). The crew reestablished the control grid and profile in the terminal phase of the 1970 field work. They worked their way down through "zone B" and terminated the horizontal extent at "zone A" which was the clay base. Below are figures illustrating the stratigraphy from Midgette's excavation as well as a scrap note that appears to detail his thoughts on artifact seriation.

Midgette Theriault Site Stratification Notes

Depth (In)	Name	Description
8-17	Zone I	Tom's Creek and Stallings type material
17-21	Zone H	Higly stained brown sand, Tom's Creek and Stallings type material
21-27	Zone G	Lightly Stained Brown Soil, Evidence of Flooding-Light Tom's Creek and Stallings Occupation
27-31	Zone F	Highly Stained Brown Soil, Late and Early Archaic Mixed
31-34	Zone E	Dark Grey soil and sand, Heath Complex
34-40	Zone D	Very fine grey sand, Huguenot Complex
40-50	Zone C	White Bleached Sand, Early Huguenot-corner notched, Big Sandy and Dalton Types. Transitional Paleo
50-53	Zone B	Yellowish sand, some clay. Paleo
53-56	Zone A	Blue Clay, occasional flint chips
None given	Zone A	Sterile Blue Clay, occasional flint chips

Table 4-4 Excavation stratigraphy generated from Midgette's notes



1 to 4 inches Zone K. Humus with modern debris	Trash Pile debris
4 to 8 inches Zone J. Light Tan Sand	Telfair Point Deptford and late Tom's Creek
8 to 17 inches Zone I. Very Dark Brown Midden	Tom's Creek and Stallings type Material
17 to 21 inches Zone H. Highly Stained Brown Sand	Tom's Creek and Stallings type material
21 to 27 inches Zone G. Lightly Stained Brown Sand	Evidence of flooding - Light Tom's Creek and Stallings Occupation
27 to 31 inches Zone F. Highly Stained Brown Sand	Late and Early Archaic mixed
31 to 34 inches Zone E. Dark Grey Soil and Sand	Heath Complex
34 to 40 inches Zone D. Very Fine Grey Sand	Huguenot Complex
40 to 50 inches Zone C. White Bleached Sand	Early Huguenot-corner notched Big Sandy and Dalton types. Transitional Paleo
50 to 53 inches Zone B. Yellowish Sand Some Clay	Paleo
53 to 56 inches Zone A. Blue Clay	Occasional Flint Chips
Zone A' Sterile Blue Clay	↓

Table 4-5 Midgette's excavation stratigraphy table from his field notes

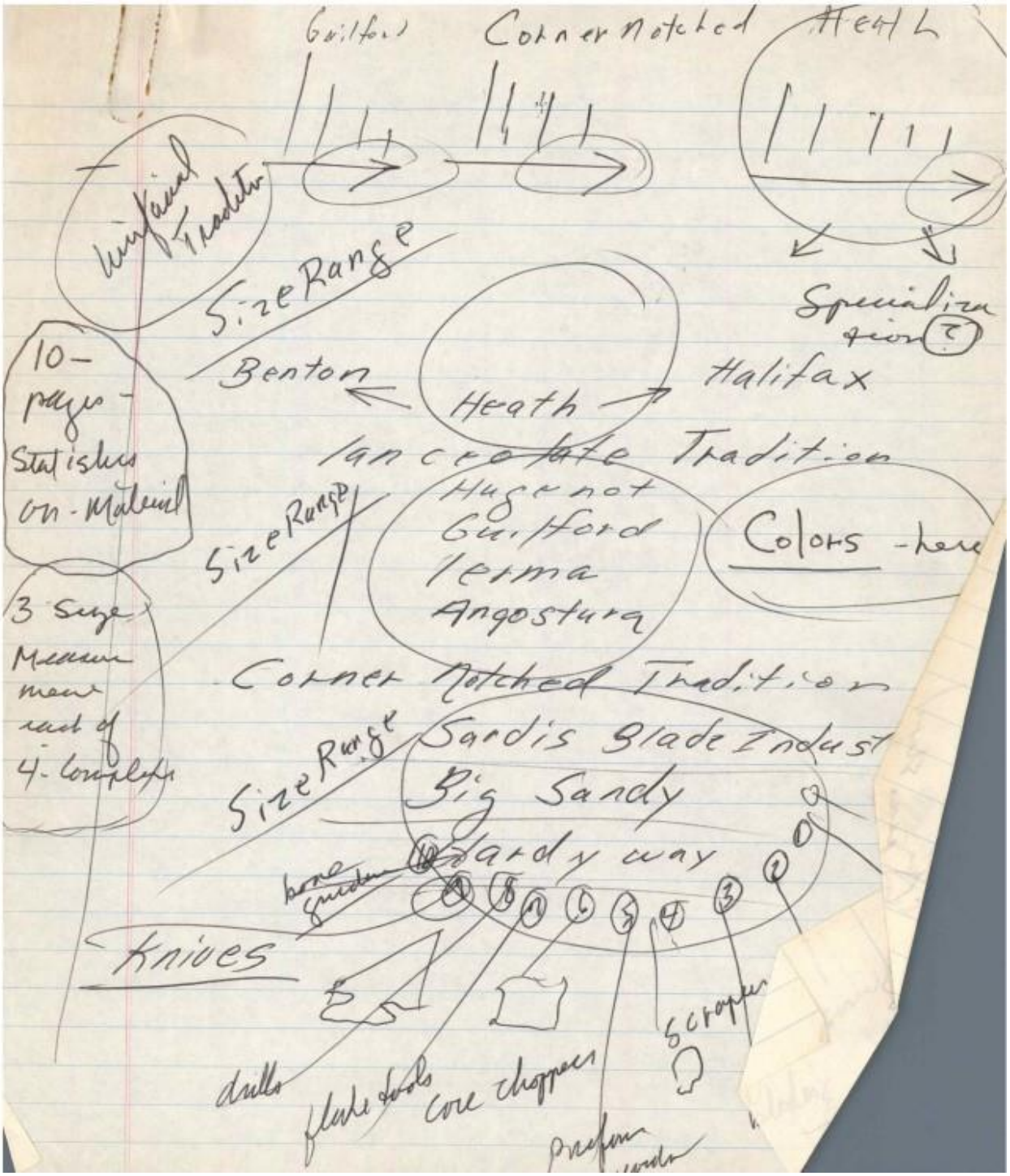
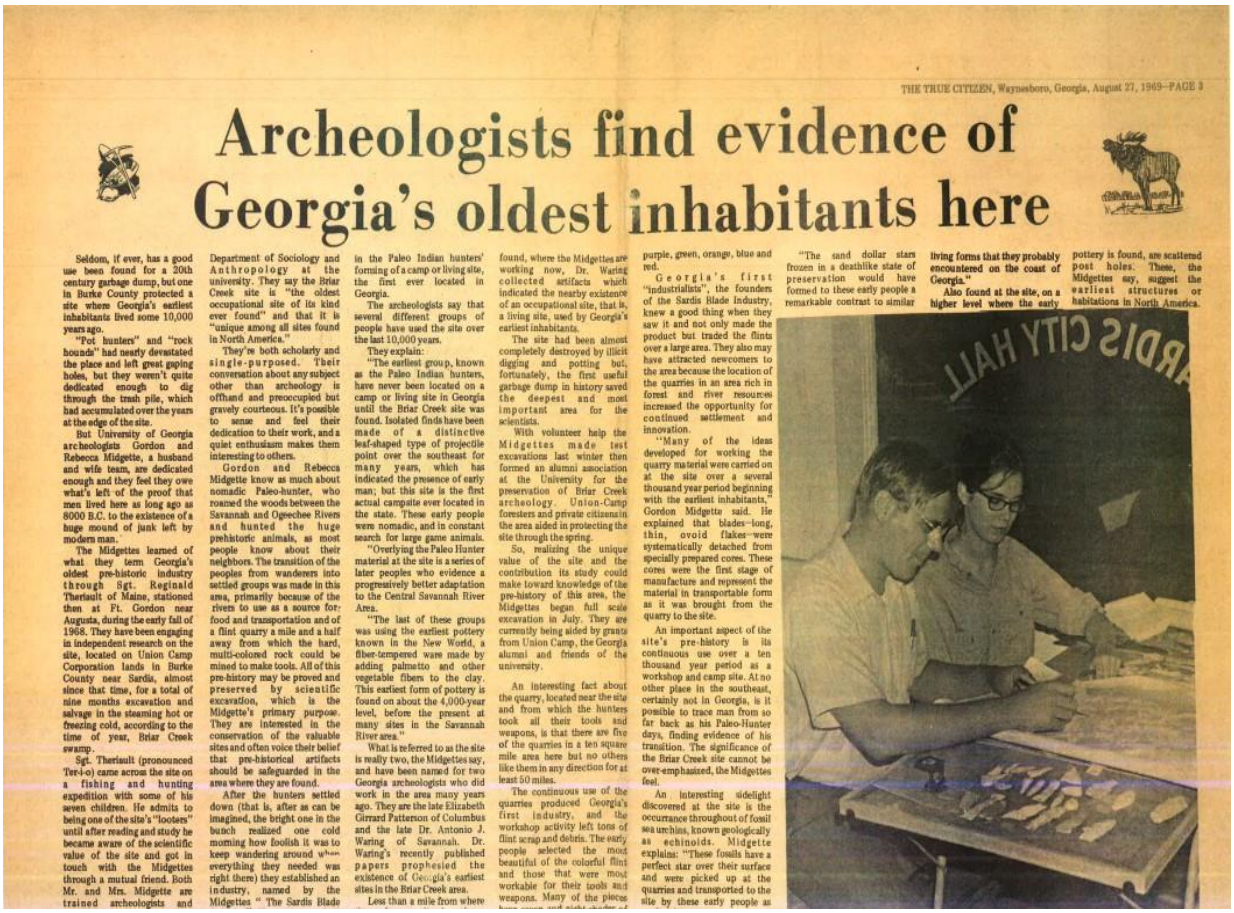


Figure 4-28 Midgette's notes regarding potential artifact seriation

Midgette notes later that the mechanical sifter had to be replaced with "North Carolina style hand shaker" as the mechanical screen's weight, motion, and necessary proximity to the

grid began to collapse the soil profiles (Midgette 1970). This is mentioned because it leads to a loss of stratigraphic integrity for a portion of the site, however, where exactly this occurred and what results were affected is not determinable from the information currently known. Midgette states that the recognizable tools and artifacts were individually bagged and labeled with their respective provenience, however, these were handed over to GSU with no such provenience intact.

A newspaper article titled “Archaeologists find evidence of Georgia’s oldest inhabitants here,” shown below, appeared in The True Citizen, the paper of record for Waynesboro, Georgia, the county seat of Burke County, dated August 27, 1969. The article is essentially a one-page breakdown of what was then known about “Paleo-Hunters” and a summary of the Midgettes’ (then Gordon and Rebecca) work at the Theriault site. There is, however, important information contained in the article. The article specifically mentions what Midgette calls the “Sardis Blade Industry” which is also a term used to describe a set of artifacts in the Theriault inventories. No one has been able to determine what exactly is meant by this term as Midgette never published his Theriault work. However, later in the article he mentions that the “blades-long, thin, ovoid flakes” were prepared at the quarry sites and then transported to the settlement sites; in this case, Theriault (The True Citizen 1969). There is also a photograph accompanying the article that has several large, stemmed blades visible but it would be an assumption to claim these represent Midgette’s “Sardis Blade Industry” (The True Citizen 1969).



THE TRUE CITIZEN, Waynesboro, Georgia, August 27, 1969—PAGE 3

Archeologists find evidence of Georgia's oldest inhabitants here

Seldom, if ever, has a good use been found for a 20th century garbage dump, but one in Burke County protected a site where Georgia's earliest inhabitants lived some 10,000 years ago.

"Pot hunters" and "rock hounds" had nearly devastated the place and left great gaping holes, but they weren't quite dedicated enough to dig through the trash pile, which had accumulated over the years at the edge of the site.

But University of Georgia archeologists Gordon and Rebecca Midgette, a husband and wife team, are dedicated enough and they feel they owe what's left of the proof that men lived here as long ago as 8000 B.C. to the existence of a huge mound of junk left by modern man.

The Midgettes learned of what they term Georgia's oldest pre-historic industry through Sgt. Reginald Theriault of Maine, stationed then at Ft. Gordon near Augusta, during the early fall of 1968. They have been engaging in independent research on the site, located on Union Camp Corporation lands in Burke County near Sardis, almost since that time, for a total of nine months excavation and salvage in the steaming hot or freezing cold, according to the time of year, Briar Creek swamp.

Sgt. Theriault (pronounced Ter-i-o) came across the site on a fishing and hunting expedition with some of his seven children. He admits to being one of the site's "looters" until after reading and study he became aware of the scientific value of the site and got in touch with the Midgettes through a mutual friend. Both Mr. and Mrs. Midgette are trained archeologists and Department of Sociology and Anthropology at the university. They say the Briar Creek site is "the oldest occupational site of its kind ever found" and that it is "unique among all sites found in North America."

They're both scholarly and single-purposed. Their conversation about any subject other than archeology is offhand and preoccupied but gravely courteous. It's possible to sense and feel their dedication to their work, and a quiet enthusiasm makes them interesting to others.

Gordon and Rebecca Midgette know as much about nomadic Paleo-hunter, who roamed the woods between the Savannah and Ogeechee Rivers and hunted the huge prehistoric animals, as most people know about their neighbors. The transition of the peoples from wanderers into settled groups was made in this area, primarily because of the rivers to use as a source for: food and transportation and of a flint quarry a mile and a half away from which the hard, multi-colored rock could be mined to make tools. All of this pre-history may be proved and preserved by scientific excavation, which is the Midgette's primary purpose. They are interested in the conservation of the valuable sites and often voice their belief that pre-historical artifacts should be safeguarded in the area where they are found.

After the hunters settled down (that is, after as can be imagined, the bright one in the bunch realized one cold morning how foolish it was to keep wandering around when everything they needed was right there) they established an industry, named by the Midgettes " The Sardis Blade in the Paleo Indian hunters' forming of a camp or living site, the first ever located in Georgia.

The archeologists say that several different groups of people have used the site over the last 10,000 years.

They explain:

"The earliest group, known as the Paleo Indian hunters, have never been located on a camp or living site in Georgia until the Briar Creek site was found. Isolated finds have been made of a distinctive leaf-shaped type of projectile point over the southeast for many years, which has indicated the presence of early man; but this site is the first actual campsite ever located in the state. These early people were nomadic, and in constant search for large game animals.

"Overlying the Paleo Hunter material at the site is a series of later peoples who evidence a progressively better adaptation to the Central Savannah River Area.

"The last of these groups was using the earliest pottery known in the New World, a fiber-tempered ware made by adding palmetto and other vegetable fibers to the clay. This earliest form of pottery is found on about the 4,000-year level, before the present at many sites in the Savannah River area."

What is referred to as the site is really two, the Midgettes say, and have been named for two Georgia archeologists who did work in the area many years ago. They are the late Elizabeth Girrard Patterson of Columbus and the late Dr. Antonio J. Waring of Savannah. Dr. Waring's recently published papers prophesied the existence of Georgia's earliest sites in the Briar Creek area.

Less than a mile from where found, where the Midgettes are working now, Dr. Waring collected artifacts which indicated the nearby existence of an occupational site, that is, a living site, used by Georgia's earliest inhabitants.

The site had been almost completely destroyed by illicit digging and potting but, fortunately, the first useful garbage dump in history saved the deepest and most important area for the scientists.

With volunteer help the Midgettes made test excavations last winter then formed an alumni association at the University for the preservation of Briar Creek archeology. Union-Camp foresters and private citizens in the area aided in protecting the site through the spring.

So, realizing the unique value of the site and the contribution its study could make toward knowledge of the pre-history of this area, the Midgettes began full scale excavation in July. They are currently being aided by grants from Union Camp, the Georgia alumni and friends of the university.

An interesting fact about the quarry, located near the site and from which the hunters took all their tools and weapons, is that there are five of the quarries in a ten square mile area here but no others like them in any direction for at least 50 miles.

The continuous use of the quarries produced Georgia's first industry, and the workshop activity left tons of flint scrap and debris. The early people selected the most beautiful of the colorful flint and those that were most workable for their tools and weapons. Many of the pieces purple, green, orange, blue and red.

Georgia's first "industrialists", the founders of the Sardis Blade Industry, knew a good thing when they saw it and not only made the product but traded the flints over a large area. They also may have attracted newcomers to the area because the location of the quarries in an area rich in forest and river resources increased the opportunity for continued settlement and innovation.

"Many of the ideas developed for working the quarry material were carried on at the site over a several thousand year period beginning with the earliest inhabitants," Gordon Midgette said. He explained that blades—long, thin, ovoid flakes—were systematically detached from specially prepared cores. These cores were the first stage of manufacture and represent the material in transportable form as it was brought from the quarry to the site.

An important aspect of the site's pre-history is its continuous use over a ten thousand year period as a workshop and camp site. At no other place in the southeast, certainly not in Georgia, is it possible to trace man from so far back as his Paleo-Hunter days, finding evidence of his transition. The significance of the Briar Creek site cannot be over-emphasized, the Midgettes feel.

An interesting sidelight discovered at the site is the occurance throughout of fossil sea urchins, known geologically as echinoids. Midgette explains: "These fossils have a perfect star over their surface and were picked up at the quarries and transported to the site by these early people as

"The sand dollar stars frozen in a deathlike state of preservation would have formed to these early people a remarkable contrast to similar living forms that they probably encountered on the coast of Georgia."

Also found at the site, on a higher level where the early pottery is found, are scattered post holes. These, the Midgettes say, suggest the earliest structures or habitations in North America.

Figure 4-29 True Citizen newspaper article about Midgette's work in Burke County

This was not the first time Midgette assigned his own typology to artifacts. In the September 2005 issue of *Atlanta Antiquity*, a publication of the Greater Atlanta Archaeological Society, Midgette states that he feels Brier Creek tool types should be separated from typologies that originate elsewhere, in this instance, South Carolina (Midgette 2005: 4). Midgette specifically mentions Edgefield Scrapers, eponymous with Edgefield County, South Carolina, which he referred to as the "Sardis Hafted Knife" (Midgette 2005: 4). This is important as the term "Edgefield Scraper" does not appear in Midgette's field notes but "Sardis Hafted Knife" does and thus provenience can be established for the Edgefield Scrapers present in the artifacts in GSU's possession. Of note is that if Midgette had decided to publish his Theriault

data he might have preempted the term Edgefield Scraper and had his own typology employed by people.

Another interesting artifact from the photograph appears to be a Quad-type biface that is not mentioned elsewhere in the site records. Midgette also notes that he believes the Theriault site is actually two different sites, the Dr. Antonio Waring site and the Elizabeth Garrard Patterson site. This is important because it clarifies Midgette's repeated reference to the "Patterson" site that turns up in multiple documents that could potentially shed some light on the artifacts that were discovered there. The last piece of information is a reference from Midgette to echinoid fossils found at Theriault. These apparently come from local quarries that contain fossiliferous raw material. While of no use as raw material, Midgette theorizes that these fossils were brought back to the settlement camps as novelties or perhaps served a religious purpose of some kind. This would be an interesting notion to hold in mind for future study of other sites in the general area (The True Citizen 1969).

4.6 The Gordon Midgette/Theriault Collection: Site and Artifacts

The nature of the Theriault site can be understood by studying the area's topography and cross-referencing the notes and reports from those that studied the property. Below is a topographical map of the Theriault Site. The site is indicated by a red polygon. Figure 4-31 is a closer image of the site with Midgette's field map overlaid.

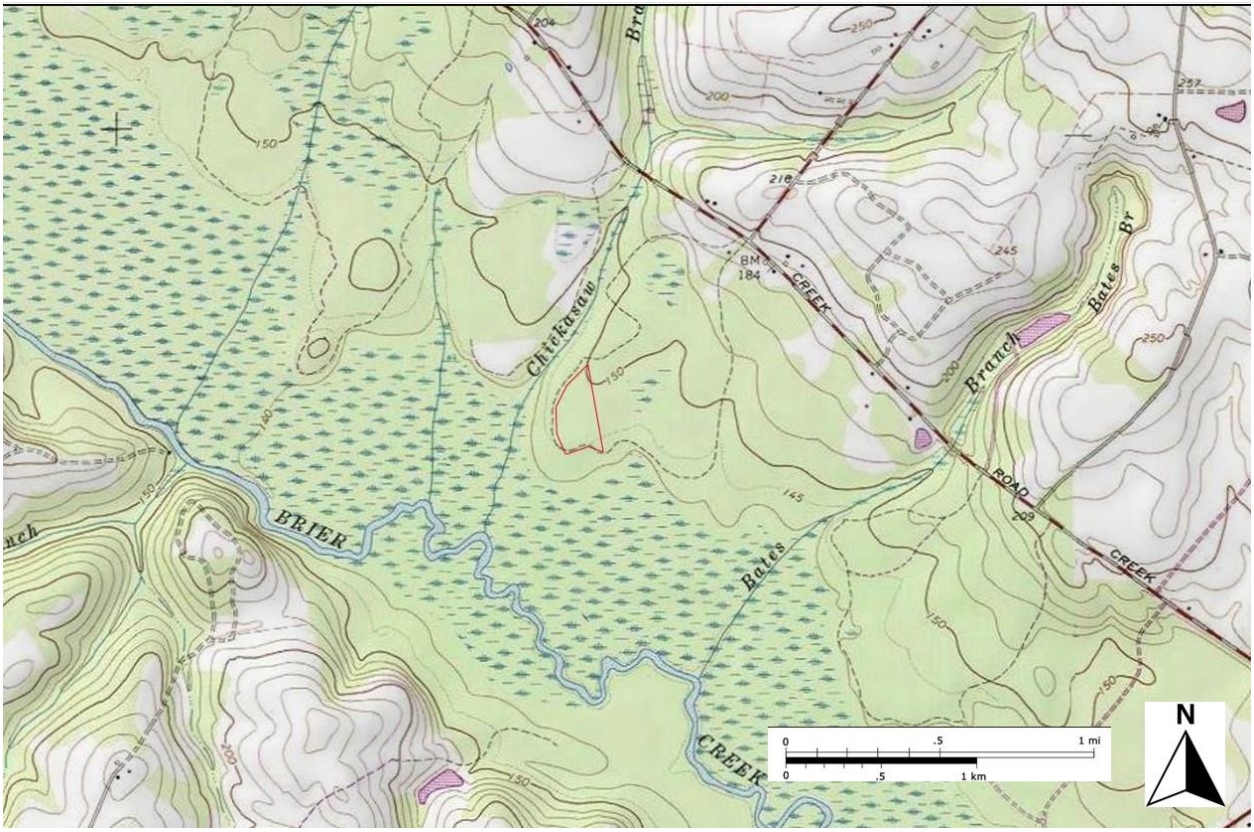


Figure 4-30 Theriault site topographical map (ArcGIS 2023)

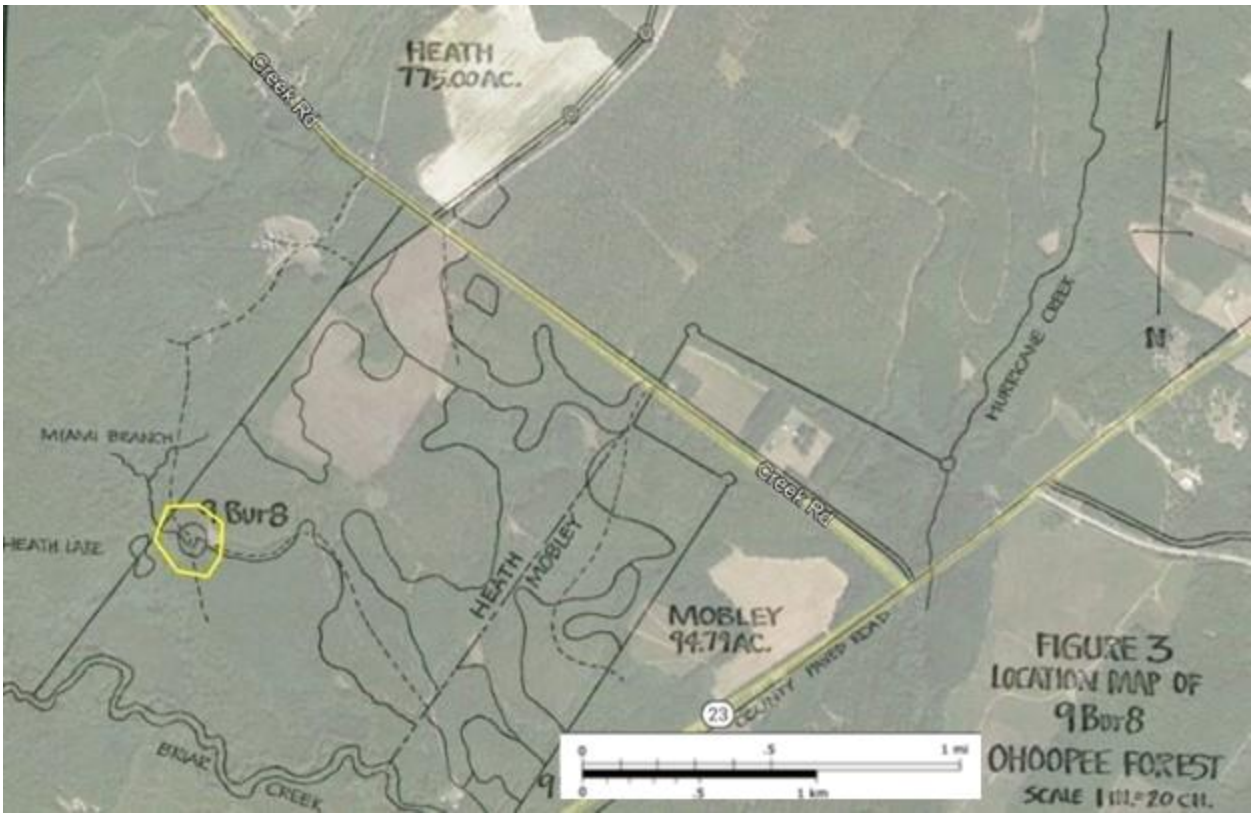


Figure 4-31 Theriault site aerial with Midgette's location map overlaid (Google Earth 2023)

As detailed earlier, the Theriault site has many aliases and has been surface-surveyed once and excavated twice in a professional manner as well as dug untold times by weekend trespassers. Local collectors were surveyed by Antonio Waring, Jr. but the details are unpublished. It is known that these collections and other surface surveys by Waring in the surrounding area garnered the attention of the Southeastern archaeological community due to a possible Paleoindian period presence (Brockington 1971).

The first verifiable artifacts cataloged and excavated from the site were done under Edwards' supervision. These items were sent to the University of South Carolina in Columbia and then shelved in September of 1966. They were not inventoried until three years later in

September of 1969 under the new state archaeologist, Dr. Robert L. Stephenson. Unfortunately, the photographs and field notes were lost in the intervening time and the only hope of reestablishing provenience was through the labels on the artifact bags and Paul Brockington's memory of the excavation (Brockington 1971). The site was recreated on paper, however, and the artifacts found were delineated and recorded.

Over 1,100 pounds of debitage was recovered in total (Brockington 1971). This indicates the site was a workshop of some sort as intense knapping activity was clearly occurring, or occurred over multiple cultural periods. In addition to this, 120 bifaces were collected from the site representing various time periods. The Paleoindian period was only evidenced by a large, fluted lanceolate form with Clovis morphology. This biface was found just above the base layer of sterile clay between 30-34 inches. Two Dalton bifaces were also recovered. One was lying at 36 inches deep, on top of the sterile clay layer and the other higher up in the stratigraphy at 18-24 inches from the surface. A Hardaway point was also found at this same level indicating a possible stable presence at the site as humans segued into the Early Archaic (Brockington 1971).

Seven Early Archaic points were found in the Taylor tradition. Two were in the deepest strata at 30-36 inches, one was collected from the 20-30 inch level, on from the 18-24 inch level with the remaining three having been donated by Buddy Theriault, thus having unknown provenience save for being collected from the general site footprint (Brockington 1971). Eight Palmer and 18 Kirk points were recovered from the 24-30 inch level which, in this excavation, essentially marked the Early Archaic horizon. Four Edgefield Scrapers are also a part of the finds recovered in this endeavor. One was found in the deepest strata layer and two others nearer to

the surface but in disturbed contexts. The last of the four was donated by Buddy Theriault which carries the same provenience caveats (Brockington 1971).

In addition, 4 scrapers were recovered. Two were located in the deepest stratum and appear to have a hafting element. Judging from the one scraper shown in Figure 14(i) of the report, it appears to have a bifurcated base and is possibly fashioned from a point in the Early Archaic LeCroy or MacCorkle tradition (Brockington 1971). Another significant point of interest from this investigation is that the raw material, chert, utilized in manufacturing these artifacts was visually very uniform. The researchers assume this raw material source is somewhere near the area but it could not be found in 1966 despite the team's best efforts (Brockington 1971).

With this knowledge in hand, we can now look at the results of Gordon Midgette's activities at Theriault to see if they support Edwards' results or draw the site analysis in a different direction. Figuring out what exactly Midgette found at Theriault requires analysis of his thesis notes, which are incomplete, the artifacts that GSU physically possesses, and other media sources such as drawing and photographic records of the bifaces. These indicate the recovery of: 1 Beaver Lake Paleo biface, 1 biface simply called "Paleo," 3 "Paleo point-preforms," 5 bifaces labeled "corner notched-1," 6 "corner-notched-2," 4 "corner-notched-3," 2 "Dalton-like-4," 6 "Sardis Hafted-Knives," established as Edgefield Scrapers in Chapter 4.5, 10 End Scrapers, 1 drill fragment, and 2 "*Pieces Esquillee*." I was unfamiliar with this latter term so research was undertaken to see if this was a valid archaeological designation or another of Midgette's personal creations. These *pieces esquillees* (Midgette did not include the "s") were noted as prominent features of the Terminal Pleistocene Vail (now known as Vail-Derbert) site in Maine per a report from the 1980 field season conducted there (Lothrop and Gramly 1982).

These are an established and well-known artifact type and are sourced all over the world as perforators or bi-polar cores. They are typically associated with older assemblages, even dating to Bed II of Olduvai Gorge in Tanzania (Lothrop and Gramly 1982). In my opinion they resemble larger versions of thumbnail scrapers and appear to be general-use tools with 2-4 striking platforms. They are found *in situ* with much older artifact groupings so Midgette might have found some similarities with items he recovered at Theriault and used this term as another was not readily available in his lexicon.

Excavation	Point Type	Count	Period
Edwards	Clovis	1	Paleo
	Dalton	2	Transitional Paleo
	Hardaway	1	Early Archaic
	Taylor	7	Early Archaic
	Palmer	8	Early Archaic
	Kirk	18	Early Archaic
	Edgefield Scraper	4	Early Archaic
	Hafted Scraper	4	Paleo/Early Archaic
Midgette	Beaver Lake	1	Paleo
	"Paleo point"	1	Paleo
	"Paleo preform"	3	Paleo
	Haw River	1	Paleo-potential
	Clovis	4	Paleo
	Clovis preform	1	Paleo
	Redstone	1	Paleo
	Quad	1	Paleo

	Wheeler	1	Paleo
	Suwanee	1	Paleo
	Edgefield Scraper	13	Paleo/Early Archaic
	Dalton	7	Transitional Paleo
	Dalton adze	1	Early Archaic
	"Corner-notched-1"	5	Early Archaic
	"Corner-notched-2"	6	Early Archaic
	"Corner-notched-3"	4	Early Archaic
	Taylor	4	Early Archaic
	Big Sandy	8	Early Archaic
	Bolen Bevel	1	Early Archaic
	Hardaway	1	Early Archaic
	Greenbrier	2	Early Archaic
	Drill	5	Unk

Table 4-6 A summary of Paleoindian and Early Archaic period finds at Theriault

Documentation of the Theriault excavation comes in the form of Midgette's notes and tables as well as photographs and drawings of the artifacts at the site. I have attempted to classify points and other artifacts from the Early Archaic and Terminal Pleistocene as best as possible from black and white photographs but will err on the side of generality in description since appreciating an artifact in person is the best way to truly undertake valid analysis. The first step in this process was to group the pictures by time period. Once that was done I scanned the pictures of bifaces and other tools I either know to be from the temporal periods covered in this thesis or more general tools that could possibly fit within these established

dates. I describe what I uncovered below. The photographs themselves are either of a grouping of artifacts or a series of individual pictures of artifacts taped to an 8.5” x 11” sheet of paper. There are also several drawings of various artifacts. Of note is that between the photographs, drawings, and artifacts physically possessed by GSU there is necessarily some redundancy. I have attempted to compensate for this in the final numbers produced by the analysis herein. The following figures all illustrate artifacts from the Early Archaic and Paleoindian time periods recovered by Midgette from the Theriault site.

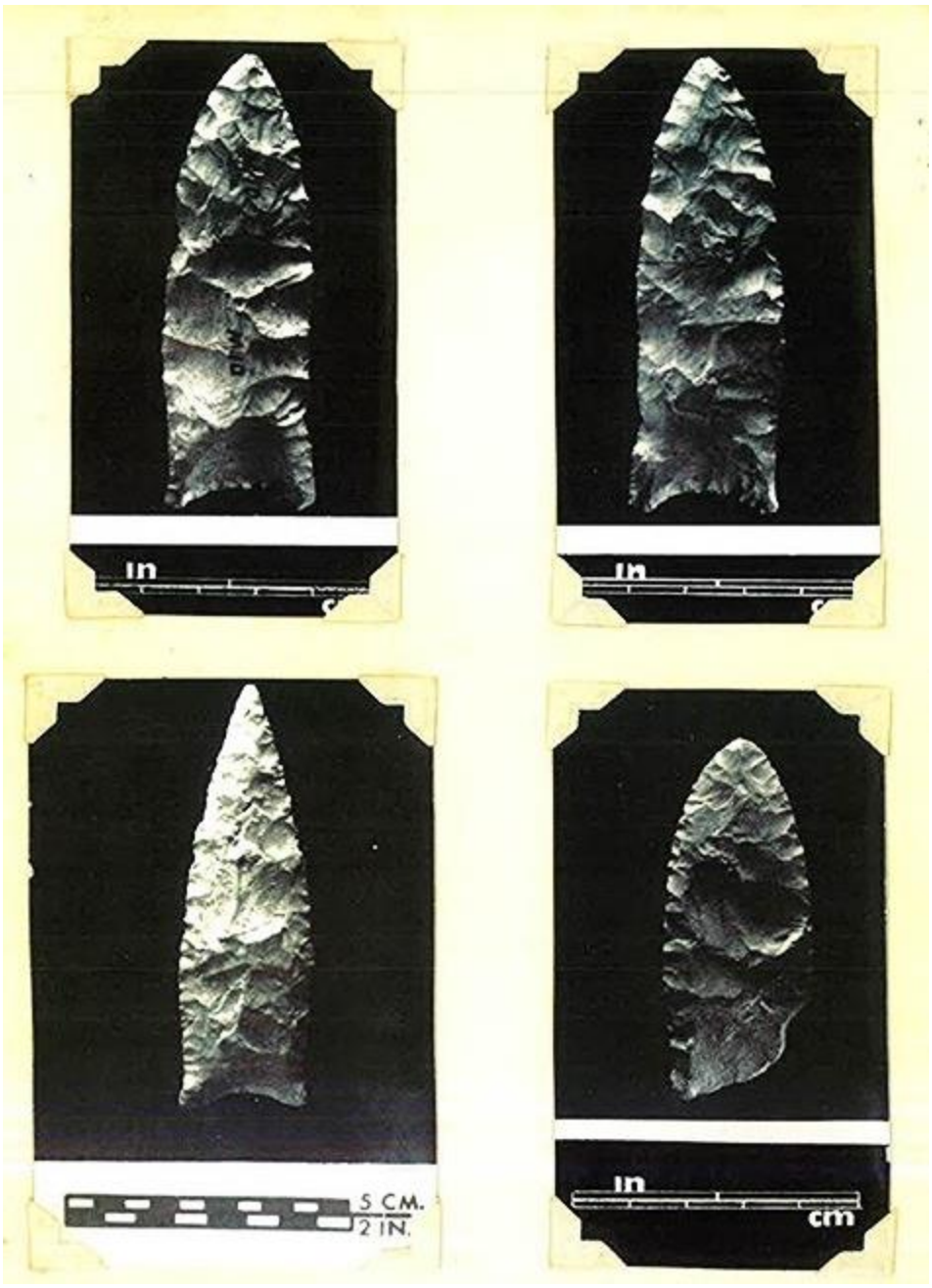


Figure 4-32 scan of Paleoindian period points from the Theriault site

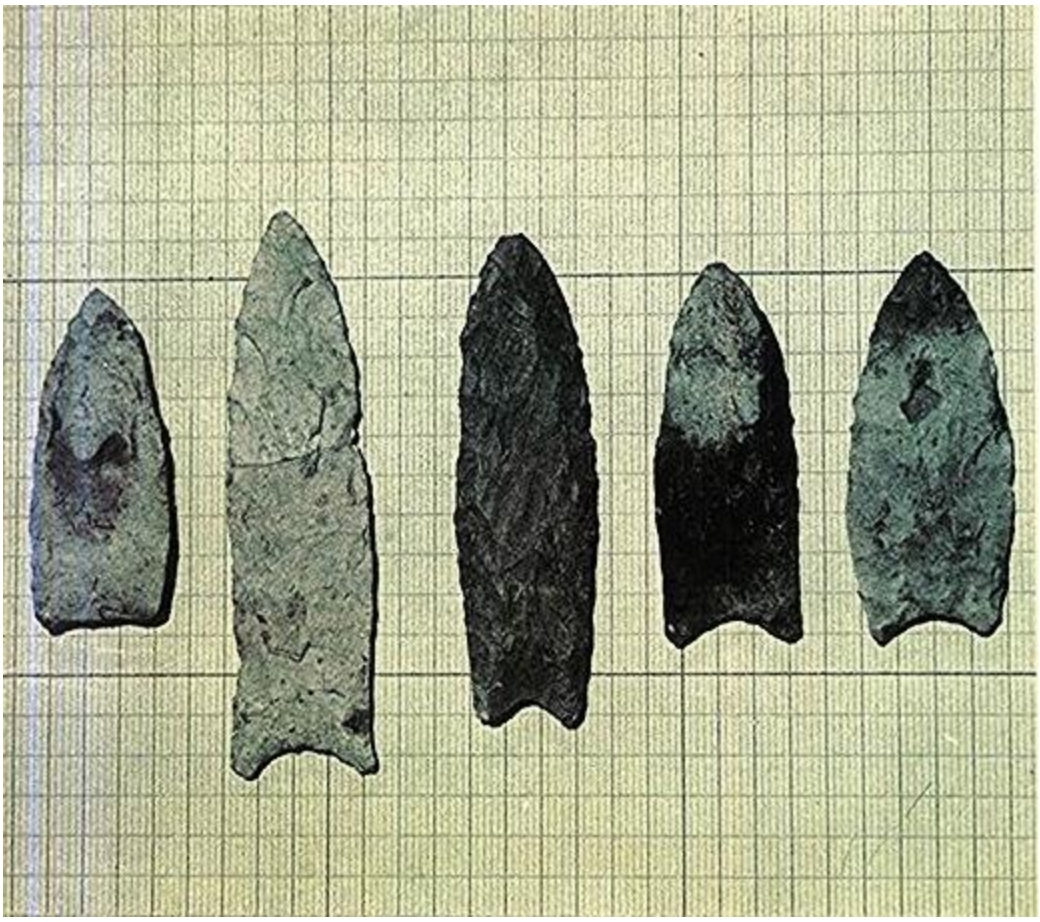


Figure 4-33 Five Paleoindian period unfluted, lanceolate bifaces from Theriault

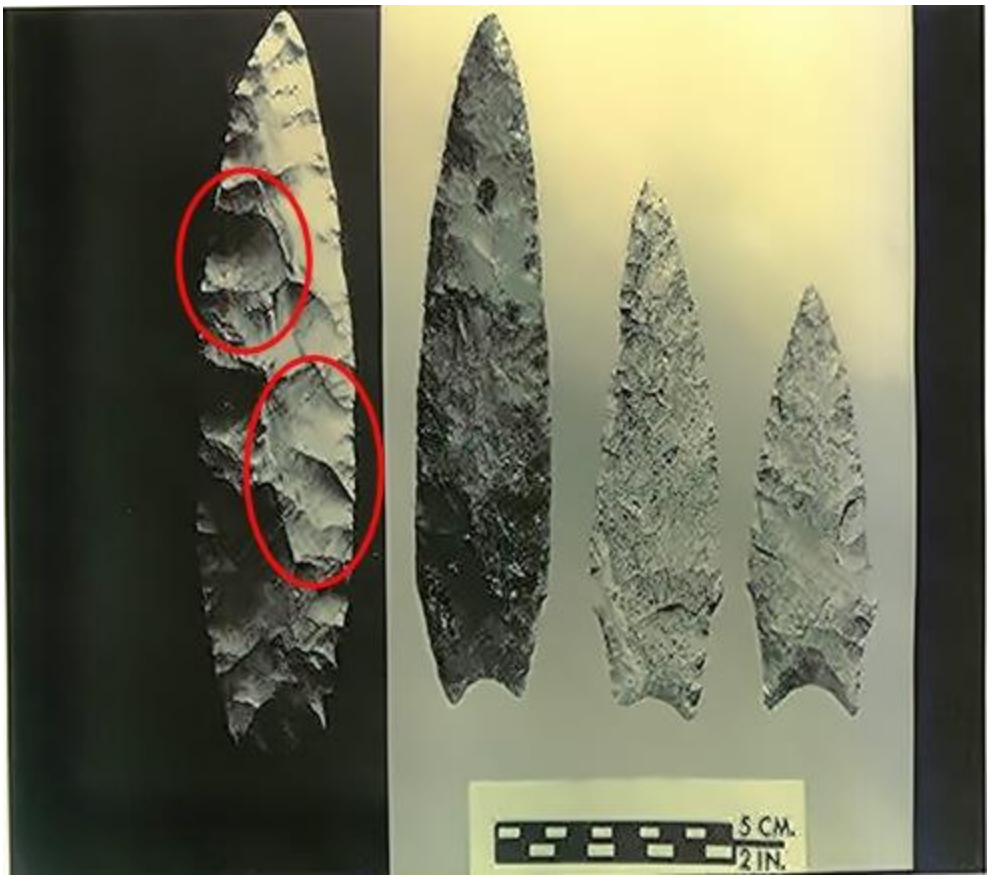


Figure 4-34 *Theriault Paleoindian period biface (L) with evidence of controlled overshot (outré passe) flaking (examples circled in red). This technique is accomplished by striking a small platform on either the left or right side of a biface that removes a flake over a large portion of the width of the biface. This technique was highly favored by certain Paleoindian period groups in biface preform reduction*

Figure 4-35 Edgefield Scrapers in the side-notched tradition that collectively illustrate the point-type's total life-cycle

Figure 4-36 Edgefield Scrapers in the corner-notched tradition

Figure 4-37 Two Edgefield Scrapers that have a much-smaller morphology

Figure 4-38 The ventral side (L) and distal, working tip (R) of the Dalton Adze

Figure 4-39 A Clovis point preform that seemingly became too thin, was broken, and then discarded

Figure 4-40 A Dalton preform that has been exposed to heat. Note that this does not mean heat-treated, but possibly inadvertent exposure

Figure 4-41 Plano-convex, unifacial tools and their cross-sections

Figure 4-42 A potential Clovis butchering tool

Figure 4-43 A representative sample of Theriault drills

Figure 4-44 A non-typable, broken biface with heavy patination that indicates potential Paleoindian or Early Archaic period association

Figure 4-45 A potential Paleoindian period perforator

Figure 4-46 A unifacial tool that is distinguished from the others found at the site by the thinness of its cross-section

Figure 4-47 Another, smaller scraping tool

Figure 4-48 A bifacial scraping tool

Figure 4-49 A smaller point that appears to have been heavily used and rejuvenated. It also has a potential flute on the base that could indicate a Paleoindian period association

Figure 4-50 A Haw River point

Figure 4-51 A representative example of Early Archaic period points from Theriault by seriation. The single point at the top is a Hardaway Side Notched. The second row from the top are two Greenbrier points. The third row from the top are Taylor points. The fourth row from the top are Big Sandy points. The fifth row from the top are Bolen Bevel points and the point closest to the bottom is a Kirk

The following figures are from the University of Georgia's artifact collection and represent Midgette's finds at Theriault. These pictures are used with the permission of the photographer, Richard Moss, RPA.

Figure 4-52 A representative example of Paleoindian period points from Theriault (image courtesy of Richard Moss, EPEI, 2023)

Figure 4-53 A broken-tipped Paleoindian period point from Theriault (image courtesy of Richard Moss, EPEI, 2023)

Figure 4-54 Two Paleoindian period bifaces from Theriault (image courtesy of Richard Moss, EPEI, 2023)

Figure 4-55 A representative sample of Early Archaic period artifacts from Theriault (image courtesy of Richard Moss, EPEI, 2023)

4.7 Conclusions

The data in these three collections illustrate some level of Paleoindian period occupation in Burke County. This occupation persists into and through the Early Archaic period. In the next chapter I use these data to test the models described in Chapter 3. Each collection and site offers unique insight when studying the area when viewed through the lens of either the “staging area” or YDC models.

5 COLLECTION DATA AND CORRELATION WITH THE HUNTER-GATHERER MODELS

In this chapter I interpret the three data sets in the context of both the "staging area" and YDC models. I also address the three collections in aggregate when appropriate. Each collection and associated site presents different data to consider and as well as unique ways of potentially corroborating the models. The limitations of archaeological materials are that the only variables to consider are point morphologies, tool-forms, and raw material type. The limitations of the site data are that they are restricted to the present condition of the site and the state of the biome during the Terminal Pleistocene and Early Holocene can only be deduced from other paleoenvironmental evidence. The limitations of that type of data are discussed by Smallwood and colleagues (2015) in the description of the research design of the YDC model. These limitations are to be expected as the archaeological record is inherently incomplete. Despite these constraints, there is indeed pertinent information provided by these collections that is useful when considering the mobility and subsistence models of hunter-gatherers of the Paleoindian and Early Archaic periods in Burke County.

5.1 The Di-Lane Plantation Collection and the "Staging Area" Model

Before I discuss Di-Lane specifically, I feel it is important to address a phenomenon that supports the notion that Burke County is an ideal location for a "staging area" for more than one group. Colonizing populations could have indeed come from the western regions of the United States but there is an argument that they could also have moved in from the coast. As stated earlier, Burke County is situated at the northernmost extent of the Coastal Plain near the Fall Line. Research has concurrently been conducted as to why there are a large number of

Paleoindian period diagnostic artifacts located very close to the current shoreline in the Chesapeake Bay area, which has artifact densities rivaling the Coastal Plain and very little in the coastal shoreline areas to the south (Lowery et al. 2012). The areas to the south, in this case specifically North Carolina, indicate roughly the same quantity of Paleoindian artifacts further inland. The most evident difference in these two areas, that are relatively close geographically, is the nature of the Coastal Plain itself. Since Terminal Pleistocene artifacts are a portion of the diagnostic evidence in this research, the shoreline of that time should be taken into consideration. The Coastal Plain during the Terminal Pleistocene would have been deeper in the Chesapeake Bay area and much shallower in the areas to the south, what is currently the Carolinas and Georgia. Lowery et al. (2012) note that the deeper coastal zones seem to allow Terminal Pleistocene hunter gatherers many more options to extract marine resources from this environment while the shallower coastal zones led these same people to exploit resources further inland (Lowery et al. 2012).

I noticed a similar pattern of artifact clusters in Burke County and wondered if the shallower nature of the coastal zone during the Terminal Pleistocene had the same effect on these people further down the coast in Georgia. I measured, roughly, the distance from the center of Burke County on the Savannah River to the closest modern shoreline, the same metric used to calculate distance in the North Carolina example. The distance from the North Carolina clusters to the modern shoreline was 68.85 miles. The same distance measured for Burke County was 68.16 miles, a match within a mile. While not scientific, one can see that the theory holds up when applied to Burke County. I believe that the Terminal Pleistocene hunter-

gatherers potentially chose to exploit resources from a viable ecotone rather than rely on coastal resources that were more susceptible to sea level fluctuations than interior regions.

Artifact data from the Di-Lane Plantation survey, specifically, can be analyzed on a site-by-site basis as well as collectively in order to understand hunter-gatherer land-use at a sub-regional and watershed level. Then the sites can be collectively considered to reveal information about the hunter-gatherer groups that occupied them and how these groups utilized and integrated with the surrounding landscape.

As explained in Chapter 2, Burke County had diverse and important floral, fauna, hydrological, and lithic resources at the time of both the Paleoindian period and Early Archaic period occupations. There are also considerable hydrological resources in the footprint of Di-Lane, a trend which, as mentioned earlier, is county-wide. The volume of hydrological resources would facilitate a further expansion throughout the county after an initial "staging area" had been established. The water courses located on Di-Lane are not as large as the Ogeechee and Savannah Rivers to the east and west. The "staging area" model suggests that these larger rivers would have been occupied first and locations such as the watersheds on Di-Lane Plantation would provide a secondary expansion after the initial colonization of the larger region. The apparent lack of intensive occupation at the Di-Lane sites makes sense if this area was only sparsely used. It is possible that these groups would foray into areas such as the Di-Lane watersheds to forage for resources or hunt, for example. This is perhaps why the survey failed to locate Paleoindian material in any concrete, diagnostic form. If the patination on the preform recovered at site 9BK207 truly indicates a Paleoindian presence it simply bolsters the case that this area was occupied earlier than the Holocene and that the occupants were

reducing a tool to final form. This group could very well have been utilizing raw materials within the ABCC technocomplex. These individuals were also taking advantage of the raw material availability in the area. Site 9BK207 is located on one of the many chert outcroppings in the county and the final tools recovered by the survey are all made of local materials. This shows that these groups were obtaining and transporting this tool stone throughout the footprint of Di-Lane to a degree but not nearly the volume of material recovered from Topper, Theriault, and Davis Plantation.

As the climate and biome changed at the beginning of the Holocene, the flora and fauna of the area was replaced by different species, but the availability of resources would have most likely been high enough to sustain a hunter-gatherer population (Delacourt and Delacourt 1985; LaMoreaux et al. 2009). The presence of possible Paleoindian period material at three of the sites is co-deposited with Early Archaic material. The number of sites with Early Archaic material is much larger than the sites with potential Paleoindian material. This potentially infers two things. The first is that the Early Archaic witnessed an expansion in population. The second is that the population during this time was more mobile and represented a version of Binford's (1980) forgers, thus, sites associated with these groups would wider spread. This pattern also supports the "staging area" model as it predicts that once a given population has thoroughly settled in a certain area the population grows and expands.

Di-Lane is not a large enough area, in-and-of itself, to test the applicability of the "staging area" model in the manner conducted by Smallwood (2012), however. The groups occupying the area would have been too close together to control for any potential influence on one another. Aggregating data from the county as a whole, however, could potentially point

to a distinct cultural element that could then be tested against other, similar-sized groups located further away on an equally sized geographic footprint.

5.2 Di-Lane Plantation Collection and the Younger-Dryas Chronozone Model

Before I analyzed the specific sites, I wanted to evaluate the county as a whole using the same methods as Smallwood et al. (2015). I entered the data from PIBDA for Burke County to see if it supported the YDC model findings. The results (Table 5-1) reflect the YDC point-periods, but I felt it necessary to remove the Haw River typology from the input data ("unfluted-period unknown," my designation) as its age is currently not solidified as well as the "fluted-unknown" typology from PIBDA, as I cannot properly place it in the Clovis or post-Clovis fluted point category. Table 5-2 below is the adjusted data. These data directly correspond to the findings from the YDC survey data. This indicates that, at a county-wide level, there is an overall direct correlation with this model.

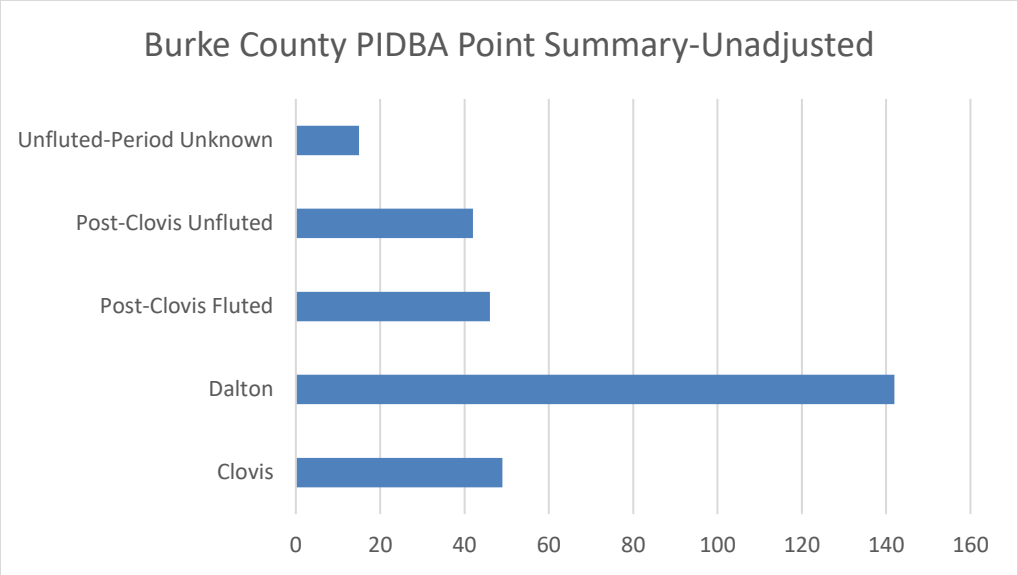


Table 5-1 PIBDA data for Burke County

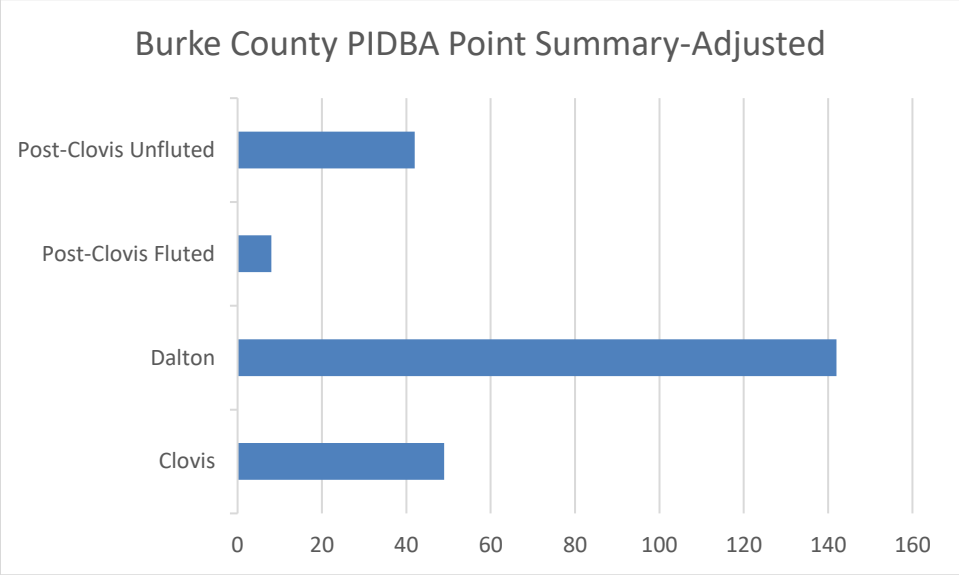


Table 5-2 Adjusted PIBDA data for Burke County

The Di-Lane survey collection contains little material that could be attributed to a Paleoindian group or groups. As discussed earlier, even the potential Paleoindian material is problematic due to patination being the sole diagnostic factor. If the end-scrapers and more

heavily-patinated tools are indeed indicative of the Paleoindian tool kit as well, they still represent a small fraction of the overall recovered material. What is illustrated, however, is that groups that used an Early Archaic tool kit possibly outnumbered the groups that utilized a Paleoindian tool kit. This is evidenced by the number of sites from which Early Archaic material was recovered. This material is diagnostic of the Early Archaic since it is in the early corner-notched and side-notched traditions. These Early Archaic point styles emerged directly after the Dalton tradition and can therefore be used to observe subsequent population trends. This supports the YDC model as it indicates a population increase at the end of the YDC concurrent with the later phase of the Pleistocene-Holocene transition. Thus, the ending of the climatic fluctuations allowed for a more stable and expanding population to inhabit the area.

There was no exotic material, per Smallwood and colleagues' definition, recovered during the survey so the aspect of the YDC involving material transport cannot be factored into my analysis. All of the material recovered in the survey were made from local chert and follows the trend of the material considered in the YDC, namely, that Coastal Plain chert is discarded locally. This also illustrates local stone procurement which is also in line with Smallwood and colleagues' findings (Smallwood et al. 2015). The authors also noted the similarity in the distributions of Clovis and post-Clovis unfluted points. This implies a similar land-use strategy used by these two groups. The Di-Lane data do not offer direct evidence of this exact pattern but since the possible Paleoindian sites were universally occupied by people of the Early Archaic, a similar trend is observable. The Clovis time period in the YDC model is closer to the post-Clovis unfluted point period than the Early Archaic period in total artifact count and distributions. However, considering the similar distributions in the Di-Lane survey between

potential Paleoindian period sites and Early Archaic period sites, it can be reasoned that these groups had some manner of parallel land-use strategies. This interpretation further implies these two groups were dealing with similar environmental conditions. This is further supported by the fact that the post-Clovis unfluted point count exceeded the chronologically earlier post-Clovis fluted point count by a factor of ten; a similarly unbalanced proportion to the potential Paleoindian material from Di-Lane compared to the Early Archaic material. However tenuous the comparison, it indicates support for a core tenet underlying the YDC model - peoples occupying this portion of Burke County theoretically had a large population increase that coincided with the end of the Younger Dryas.

5.3 The Roland Steiner/Davis Plantation Collection and the "Staging Area" Model

The relatively smaller, concentrated size of Davis Plantation clearly does not allow a regional or county-level analysis of the "staging area" model. However, it was obviously a very consistently and intensely utilized location. Beyond typable points, artifacts recovered at Davis Plantation include scrapers, drills, axes, and burins. The volume of artifacts and their diversity of uses imply Davis Plantation served as a residential site that was occupied, potentially left when resources not directly present were required, and then consistently returned to in order to process those resources. Thus, it is very likely Davis Plantation was a smaller-scale example of the "staging area" phenomenon and consistent with the use of residential sites from a collector model of hunter-gatherer settlement patterns.

The site is also close to the Di-Lane Plantation footprint and could certainly be reached by foot from any given site discovered in the Di-Lane survey. Since prehistoric “mapping” of the area in the minds of the people of the time was not influenced by any current parcel delineations, it could reasonably be assumed that these groups interacted with one another. It can also be surmised that this group or groups might have even occupied the same sites depending on the season and need for a given resource. A primary occupational site could have been Davis Plantation and the surrounding area, such as the sites at Di-Lane Plantation, were perhaps used as exploitable territory when needed in a version of Binford’s collector model.

The artifacts recovered at the Davis Plantation indicate extensive and concentrated human activity. Many of these artifacts show heavy use-wear which can indicate that a site has a specialized use, such as a hunting camp. The other artifacts found at the site show that more varied activity was taking place. This residential component of Davis Plantation supports the “staging area” hypothesis. Specifically, it appears that the site was a long-term use “staging area.” The groups occupying this site were most likely not merely passing through. Or if that was the case, they did so very consistently. Based on the point morphologies Steiner recovered, a group of people utilizing a Clovis tool kit occupied the site during the Terminal Pleistocene. The site was then occupied in some capacity, whether consistently or more sporadically, until the Early Archaic (and well beyond when one considers the full extent of the materials recovered by Steiner not included in this thesis). If the volume of artifacts from the Early Archaic period indicate a larger population of individuals, if would seem that the site was deemed important and resource-rich for many generations of people. This, coupled with the notion mentioned in the Di-Lane analysis that larger rivers were the first targets of colonizing

groups, indicates that these groups most likely entered the region, at large, earlier than the individuals utilizing the Clovis tool kit or that the Clovis-tool group is a later cultural manifestation and represents a different incursion. The “staging area” model states that the largest watercourses in a given region are the focus of colonizing groups. Buckhead Creek’s size does not qualify as one of these water courses so one must reasonably consider the site a secondary location serving the interests of a group reflecting a post-incursion population. Essentially these groups moved from larger water courses to smaller ones over time. This could also support the newer theory that tools found at the Topper site are precursors to the Clovis tool kit, or that these tools represent a prior occupation. Whatever the case, hunter-gatherers were certainly thriving in this area at the Terminal Pleistocene and had, at that point in time, slowed their overall mobility in order to center themselves on the Davis Plantation site. The site being, again, most likely representative of an exploratory expansion once these groups had previously “staged” themselves and became comfortable on the larger waterways.

The Davis Plantation data indicate that the site not does not fit the parameters of an ABCC *quarry* location. This necessitates an analysis of the site in relation to a larger area. What is known about the site is that there was a dense and dynamic Paleoindian and subsequent Early Archaic period presence there. The distance from Davis Plantation to Topper and Big Pine Tree is approximately 40 miles. Although no research into the exact tool stone procurement location has been done on the artifacts in the collection, less than one percent of them are made of material other than ACP chert. The use of this material, the distance from known ABCC quarries, and the implied density of the occupation could indicate several things about the hunter-gatherers considered by Goodyear to be a part of the ABCC. Also, contrary to the

pattern of Clovis points being single finds in the ABCC footprint, Davis Plantation has a robust Paleoindian point density. This potentially indicates that the ABCC hunter-gatherers might have expanded from their initial "staging areas" on the Savannah River and settled in smaller locations such as Davis Plantation and became entrenched there, thus illustrating another iteration of the "staging area" model. In order to gauge the probability of this notion, future excavations would have to take place at the site to assess the scope of tools deposited there.

The topography of the site indicates that it is located at the northern extent of a series of ridges overlooking what is now Buckhead Creek. This makes the site a natural meeting place for various groups to strike out on resource-gathering expeditions (Miller 2016). The tools discarded at the site are heavily used which indicates groups were leaving to gather resources or hunt and then returning with their tools consistently over time. This again points to the fact that the groups residing there could have found aspects of the site appealing enough to use it as some sort of operational base location. The intensity of the occupation also implies that the people occupying the site most likely did not engage in any further "staging area" expansion and had found their most desirable location within the local landscape.

5.4 The Roland Steiner/Davis Plantation Collection and the Younger-Dryas Chronozone Model

The Steiner collection contains points in all four of the categories that outline the chronology of the YDC model. It provides the most data of the three collections for these

categories as well. As detailed earlier, the collection has 120 Paleoindian points and 796 Early Archaic points. The increase in Early Archaic period point typologies at the site imply a robust population during this time period. Using photographs taken by Jones and Elliot in documenting the collection at the Smithsonian as well as their data from recording the points in PIDBA, more detailed observations can be made.

The collection has at least 20 Clovis points which, due to the relative rarity of this typology in the archaeological record, indicates a robust presence of groups using this technology at the Davis Plantation site. There are only five post-Clovis fluted points, which represents a 75% reduction in recovered material but not necessarily a directly proportional drop in population. It does, however, represent some level of population fluctuation as noted by Smallwood and colleagues (2015). The number of post-Clovis unfluted points jumps to 15. This, again, follows the YDC model's predicted population increase during this period. Points from the Dalton period are several times more numerous than all of the points from previous periods combined and greatly exceed the quadruple increase over post-Clovis unfluted points observed in the model's data survey. There are over a hundred of these points representing a large population increase as the Younger Dryas came to a close. There are also a variety of Early Archaic points that, when added to the Daltons, make up the balance of the 796 points from this period. This indicates the Dalton population expansion continued on as later groups created points with different morphologies. The new, consistent, and stable climate of the Holocene affected the entire Southeast and beyond and was most likely an important contributing factor driving this population boom.

The majority of points in the collection were made from local chert sources. This is consistent with the data set informing the YDC model and also with the other collections discussed herein. Of note is that two Paleoindian points and 10 Early Archaic points in the Steiner collection were made from Ridge and Valley chert, sourced in northwest Georgia (examples included in Figures 4.22 and 4.23). As I noted in the YDC model description earlier, when Ridge and Valley chert is utilized during these periods it is usually found in the Ridge and Valley physiographic region itself or far away from it. The theory is that this material was held on to and used when traveling to other locations due to its superior quality. The Ridge and Valley chert tools from Davis Plantation show excessive wear which one would expect to see on a tool consistently used on a long trip, such as from the Ridge and Valley region to the Coastal Plain. If this is the case for the groups using the Ridge and Valley chert tools found in the Steiner collection, then it indicates that the Ridge and Valley region might have been traveled to by groups as a perceived refuge during the Younger Dryas. These groups could have vacated the area but not represented the total population(s) that used Davis Plantation as a residential site. In other words, there could have been groups that elected to hedge their bets and stay behind. The groups that left the Coastal Plain could have eventually returned, bringing their tools along the way but, once (re)situated in the area with whomever occupied the site at the time, began prolific exploitation of local chert sources. This would explain the limited number of tools made from Ridge and Valley material. It is theorized certain groups during the Early Archaic were not necessarily confined to one watershed and could have interacted for mating and other purposes at intermediate locations between the physiographic regions (Anderson and Hanson 1988). However, consistent, direct trade between groups using either Ridge and Valley or ACP

chert is difficult due to the distances between these regions and would probably not be a priority due to the fungibility of the material. Also, macrobands, or groups that generally confined themselves to a specific area, had a consistent penchant to roam that area for resources but stay tethered to area-significant stone tool sources (Daniel 2001). These groups held their tool stone at a premium.

Specifically for the inhabitants of the Davis Plantation site, these Ridge and Valley tools could indicate that groups left and returned during the Younger Dryas, evidenced by the Paleoindian points, as well as after the Younger Dryas, evidenced by the Early Archaic points. The second option is that these tools were brought by groups that were entering the area for the first time and represent colonization rather than a population shift caused by the Younger Dryas. The second option is somewhat diminished by two things when considered together. The first is that the "staging area" model asserts that larger water courses were targeted for occupation by groups coming into a new area for the first time. The second is that Ridge and Valley chert was held onto by groups to support the exploitation of resources while traversing the landscape and abandoned for local chert sources upon arrival. Therefore, the Davis Plantation site would most likely not be a location occupied by groups moving into an area for the first time yet has evidence of Ridge and Valley tools which would have been discarded in proximity to larger waterways. Therefore, it is more likely the artifacts at Davis Plantation indicate that the site was left and specifically returned to. If this can ever be determined it might represent a more consistent phenomenon, that of "targeted return," that can inform the YDC model.

As a whole these data confirm that there were indeed population changes represented by point morphology and quantity during the Younger Dryas. After this climactic event the population of the area increased dramatically which indicates that the subsequent environmental conditions supported a more thriving and stable population that could then expand.

One limitation in analysis of these artifacts, however, is that they were heavily used and maintained which limits the ease with which they can be placed into morphological typologies. There are enough diagnostic traits for most of the artifacts to attach them to a YDC time period; however, it is prudent to make these limitations clear.

5.5 The Gordon Midgette/Theriault Collection and the "Staging Area" Model

Theriault, as excavated, is smaller than Davis Plantation, but the data from the site follows in a similar pattern - a large amount of recovered material in a limited footprint. The material recovered from the site indicates an intense residential use, similar to Davis Plantation. The large number and varied style of Edgefield Scrapers recovered indicates some form of activity that required woodworking, perhaps bone-working, or certainly some manner of subsistence activity and resource exploitation. The Edgefield Scrapers illustrate the entire sequence from initial morphology to full exhaustion. They also occur in two separate morphologies, side-notched and the corner-notched variety from the Early Archaic Kirk tool kit. This implies these artifacts were fashioned at the site to their final form and then used until exhaustion by groups residing at the site and that this recurred over subsequent occupational

periods. The Dalton adze recovered there further indicates wood-working and the drills are indicative of non-hunting activity, notably wood/soft stone drilling and leather/hide maintenance. The potentially Paleoindian perforator would have been utilized like a non-spinning drill to puncture softer material and also indicates non-quarrying, residential activity as well for the time period preceding the Dalton horizon.

This notion is further evidenced by the presence of the uni- and bifacial scrapers that do not fall under the Edgefield Scraper typology but also indicate animal and plant processing activities. The larger Paleoindian chopping tool indicates similar activity, likely butchering. As the styles of the Early Archaic unifacial tools as well as the distinct chopping tool stem from different cultural periods, the site was most likely occupied by people engaging in these residential activities consistently over the course of the Terminal Pleistocene-Early Holocene transition. The broken Clovis preform and the Dalton preform indicate tool-making activity over this time period as well. Thus, Theriault has an identifiable residential component. This could, of course, be seasonal or permanent but the volume and variety of artifacts implies it was consistent over time.

Through analysis of the collections acquired from each site, it has been shown that Theriault and Davis Plantation both had a robust residential occupation. One difference between the sites, however, is their proximity to major rivers. This is important as larger rivers are initially sought by colonizing groups, per the model, and are then populated and expanded from. Theriault is located roughly 6.5 miles from the Savannah River. Davis Plantation is roughly 40 miles from the Savannah River, but only about 5 miles away from the Ogeechee River to the southwest. I do not have large-scale data on sites along the Savannah and Ogeechee Rivers as

to ascertain which were potentially colonized first. However, I think it is safe to allow for the possibility that Davis Plantation and Theriault were initially occupied as sites subsequent to an initial colonization event that clustered around the rivers. This would have their occupations begin at generally the same time and indicate that both sites are examples of the "staging area" model in that they are later-occupied residential sites on large, but not the region's largest, water ways.

The Theriault collection artifacts are all also exclusively made of local chert sources. As mentioned above, these artifacts range in morphologies from finished points to a wide variety of tools used to exploit raw material in the area. This further indicates that these groups adapted to their local natural resources and maintained their adaptability over time as the Pleistocene shifted to the Holocene. Both of these facts are predicted behaviors outlined in the "staging area" model.

Theriault was occupied in the same time-period as Davis Plantation. Unlike Davis Plantation, however, Theriault exhibits evidence of quarrying activity. The site, as noted by Goodyear in his discussion of the ABCC, is in the floodplain of Brier Creek. Its elevation, however, allows for flood risk mitigation for a potential knapping site as well as a habitation area. Although the debitage from the various excavations is not specifically studied for this thesis, the sheer volume of it uncovered is indicative of reduction activity, and thus, a potential workshop and a very consistently occupied site. There are a number of additional factors in such analysis but it is evident that, at both sites, intensive tool making occurred, although Topper most likely exceeds Theriault in that regard due to the proximity to, and volume of, chert resources at the site.

Theriault is much closer to the epicenter of the ABCC and is approximately 16 miles from Topper. If Theriault was indeed a quarry location, the abundance of tools reflecting residential use aligns with Topper and Big Pine Tree in being a multi-functional location where parties met to quarry, make initial blade forms, and temporarily reside. Therefore, it illustrates the same potential pattern implied at Davis Plantation: a secondary "staging area" concentrated on a relatively small and specific footprint.

5.6 The Gordon Midgette/Theriault Collection and the Younger-Dryas Chronozone Model

The Theriault site also yielded Paleoindian and Early Archaic point typologies that correspond to all of the periods of the YDC model. This indicates that the site was occupied from the onset of the Younger Dryas until its terminus. The corner and side-notched points of the Early Archaic show that this occupation continued unabated into the Holocene. All of the points from these time periods are made of Coastal Plain chert. This continues the trend noted in the other collections that points made of this material were almost always discarded locally. Due to the nature of the curation of the artifacts that were recovered from Theriault, we might never know the true number of points that come from the Paleoindian and Early Archaic periods found there. I have, however, pieced together information regarding the applicable point types from the Brockington report, the newer collection housed at GSU, and the UGA collection. The interpretation of the latter was made much more convenient by the work of recording the points in PIDBA by Scott Jones and the late Jerald Ledbetter. Jones and Ledbetter documented four Clovis points and Edwards one, for a total of five. There is another Clovis

preform in the GSU collection which should apply as it represents the same group utilizing this tool kit, therefore there are six Clovis points in total for purposes of this analysis. The post-Clovis fluted points are represented by a Redstone (n=1) and a general-description "fluted lanceolate" (n=2) for a total of three. This tracks with the state-level data which indicate a decline in the populations that utilized these types of points. I must note that the Clovis points recorded in PIBDA from this collection have very shallow flutes and at a superficial level appear unfluted. This is just an observation, but I feel it is important as this could skew the data in a direction that adds much more relative weight to the post-Clovis unfluted category, thereby emphasizing this group's population increase. For the analysis herein, however, I default to the expertise of Jones and Ledbetter.

There are also points in the post-Clovis unfluted point category. Jones and Ledbetter documented a Wheeler and Suwanee point and Midgette recorded a Beaver Lake and a Quad. Midgette's slides at UGA and some of his corresponding photographs show an additional Wheeler distinct from the former as well as another, indistinct, unfluted Paleoindian point. Midgette's photographs of the artifacts also show several points that appear to have a general Paleoindian morphology but are not recorded to my knowledge. Midgette's site records only include records of one "Paleo" and three "Paleo preforms" which is not definitive. Therefore, there are at least six post-Clovis unfluted points recovered from Theriault but this number might not represent the actual amount recovered. Despite this, what is known is that the amount of post-Clovis unfluted points matches the amount of Clovis points, both being double the amount of post-Clovis fluted points. This does not directly equate to the ten-fold increase of post-Clovis unfluted over post-Clovis fluted points seen at the state level in the YDC survey

data, but it follows the overall trend illustrating a reduction in population at the time these tools were created and utilized. This indicates that the site was resilient when framed in light of the theorized population fluctuations during the YDC. Populations might have indeed left, however, those that remained, or certain groups whether the original inhabitants or not, seemed to prefer this site.

The final category used in the YDC model is the Dalton group. Jones and Ledbetter documented three Dalton points in PIDBA, Edwards documented two, and Midgette documented four. The GSU collection contains one Dalton preform. I have to be conservative and assume the three Daltons points UGA recorded are three of the four documented by Midgette. Therefore, there are a total of seven Dalton points. This is only one more than the post-Clovis unfluted category. However, Edwards also documented 34 points in the Early Archaic corner and side-notched tradition, the GSU collection contains 19 points in this tradition, and the UGA collection (judging from photographs of the aggregated artifacts) contains roughly 15 of these points. If the volume of artifacts somewhat mirrors the populations of the time, this potentially points to an uptick in population at the onset of the Early Archaic period. By observing tool-kit composition through the Younger Dryas and into the early Holocene, one can see that populations ebbed and flowed in the YDC and then potentially expanded when the climate stabilized.

6 CONCLUDING REMARKS AND FUTURE RESEARCH POSSIBILITIES

The three collections analyzed herein all have distinct challenges for analysis yet also provide important information for the Terminal Pleistocene and Early Holocene hunter-gatherers of the central Savannah River Valley. The Di-Lane survey provides a large-scale land use study possibility with relatively minimal artifacts but excellent provenience. The Steiner collection has good provenience, certainly for the time it was acquired in the field, and contains an immense amount of artifact data in a very concentrated area. The Midgette/Theriault data has good contextual data and also provides a fair amount of artifactual data from the time period also from a very concentrated location.

6.1 Collection and Site Analysis: Informing the Larger Southeastern Paleoindian and Early Archaic Picture

Burke County, as a portion of the central Savannah River Valley, is a geographic area that can be isolated and analyzed. This analysis can be used in conjunction with research done for other areas that is conducted at a similar geographic scope to inform larger hunter-gatherer settlement and mobility patterns. As the collections and sites indicate, Burke County most likely fell under the footprint of a “staging area” population that gravitated toward the Ogeechee and Savannah Rivers. The intensely occupied sites at Davis Plantation and Theriault and the artifacts recovered there indicate that, once “staged,” these groups expanded and established residential base camps. These data, when contrasted with the Di-Lane Plantation survey results,

back the notion that sites such as Davis Plantation were residential “staging areas” whereas the Di-Lane sites were more ephemeral and limited in use. This parallels Binford’s forager hypothesis in that these lesser-used sites leave minimal material evidence. Davis Planation and Theriault stand as evidence in opposition to this model and imply some version of a collector strategy. If only populations that followed Binford’s foraging model existed during the Paleoindian and Early Archaic periods, at a landscape scale, Burke County would most likely follow the pattern of the sites at Di-Lane Plantation. The diagnostic artifacts indicate that this happened as far back as the period when the Clovis tool-kit users were dominant. If the Haw River typology is ever confirmed as being used by groups older than those that used the Clovis tool kit, then it is implied that the Theriault and Davis Plantation sites were occupied even earlier.

These data also illustrate that the county underwent population fluctuations during the Younger Dryas. The favorability offered by the county’s natural resources and quality tool stone caused a return after this period and then large expansion of the population consistent with the other areas in Georgia studied under the YDC model. The ABCC represents a technocomplex signature that was made a group potentially present in the area at the time of the YDC and beyond. Quarries where ABCC signatures are found illustrate a unique, multifunctional, site-use strategy which, as theorized earlier, could have manifested in multiple iterations throughout the area. If future evidence could solidify the ABCC and some level of geographic extent, it could further support the “staging area” model. These groups would also have been affected by the YDC and might have altered their point morphologies over time as the populations restructured and adapted to this period by taking action up to and including abandoning the

area. Their return to the area would be a significant event as it would require retaining location data and knowledge of resource potential provided in Burke County over a long period of time. If the Ridge and Valley Paleoindian and Early Archaic points at Davis Plantation are representative of this phenomenon, then it means there were potentially multiple out-and-return trips from the area or that one group returned later.

The legacy collections and sites analyzed in this thesis show that previously obtained data can be revisited with more current models. Once the site and artifact data are considered through the lens of these models, correlates can be observed that show localized and hybrid manifestations of the model's predictions for a given area. Just as Smallwood (2012) confirmed that differences in Clovis tool kit technology show regional variation caused by groups separating from "staging areas," sub-regional variation in the models themselves can be discovered when looking at an area on a site-by-site basis. These variations could then be compared with other larger regions to follow the model's correlates and observe how they manifest from the largest to the smallest geographical level. This area of research has great future potential to inform a more holistic picture of hunter-gatherer mobility and settlement strategies at multiple scales.

6.2 Recommendations for Future Research

The Central Savannah River Valley has already evidenced a large and prolific Paleoindian and Early Archaic period presence and should remain a focus of any future researchers that have a penchant for studying these temporal periods or the geographic area itself. Locating

sites and professionally excavating them is, of course, ideal but presents clear limitations and cannot be relied upon to aid in informing theories and models of the area. Goodyear even states that a perfect scenario would be a county-wide study of the entire Brier Creek watershed (Goodyear 2018). This could also be applied at a larger scale. Analysis of data from the watershed level of the major river courses across the state could be very informative. Data from the area between the Savannah and Ogeechee River watersheds could be compared to data from the area between the Ogeechee and Oconee River watersheds, Oconee and Ocmulgee River watersheds and so on. Aggregating these data could possibly yield more insight into the "staging area" and YDC models and perhaps be used to either streamline or revise them as well as possibly point to completely novel models.

As shown in this thesis, there is much potential in revisiting existing collections. Due to the volume of data provided by the three collections analyzed, the information presented herein is limited and general. Further, more specific, research and potential applications of the data in these collections is warranted. This would include a detailed view of the artifact metrics and morphologies to potentially delineate if distinct traditions emerged during these temporal periods. Also, liaising with collectors and avocationalists from the Burke County/Brier Creek watershed area and perusing their collections might yield important results. This would allow current theories to be retested and could provide archaeologists with a lot of data that is easier to come by, and certainly much cheaper in observing, than conducting new excavations. There would be less need to prospect for sites when they might already have been discovered and exploited.

I would also suggest these collections be revisited when appropriate or after the advent of new technology that could be used to examine them in more detail and/or offer novel analytical approaches. I would also be very interested in revisiting the Di-Lane artifacts recovered from 9BK270 to see if the raw material used to make them was sourced from the site. The curation of legacy collections that contain information from important sites should also be at a premium. Collectors should also be encouraged to report their data to PIBDA, as I intend to do with the Haw River point from Theriault and any other Paleoindian period points that are not already in the database. As legacy collections are uncovered or rediscovered over time, the potential for a more robust and informative archaeological record is almost a certainty.

APPENDICES

Appendix A Artifacts from the Gordon Midgette/Theriault Collection

Early Archaic and Paleoindian period points from the Midgette/Theriault collection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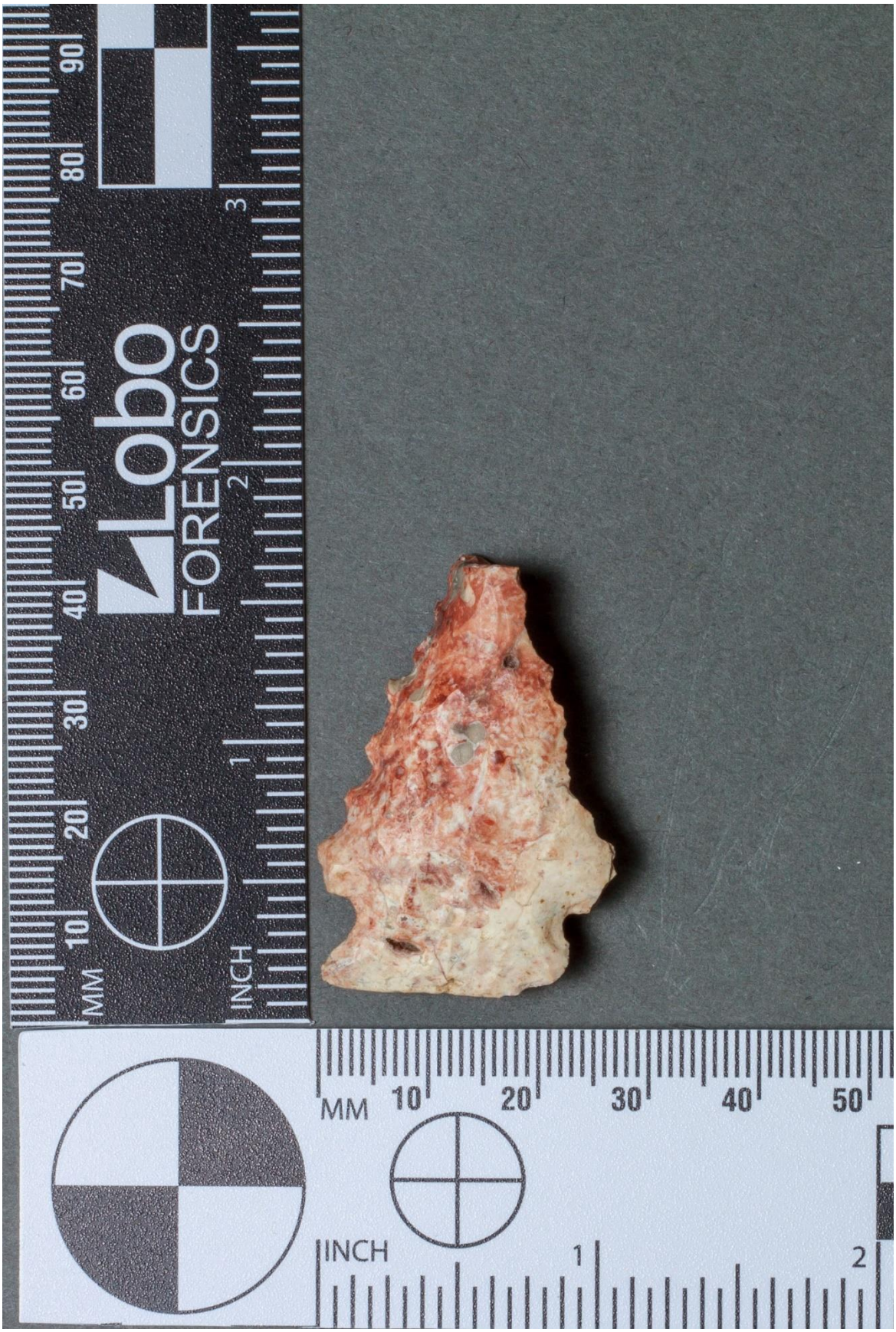
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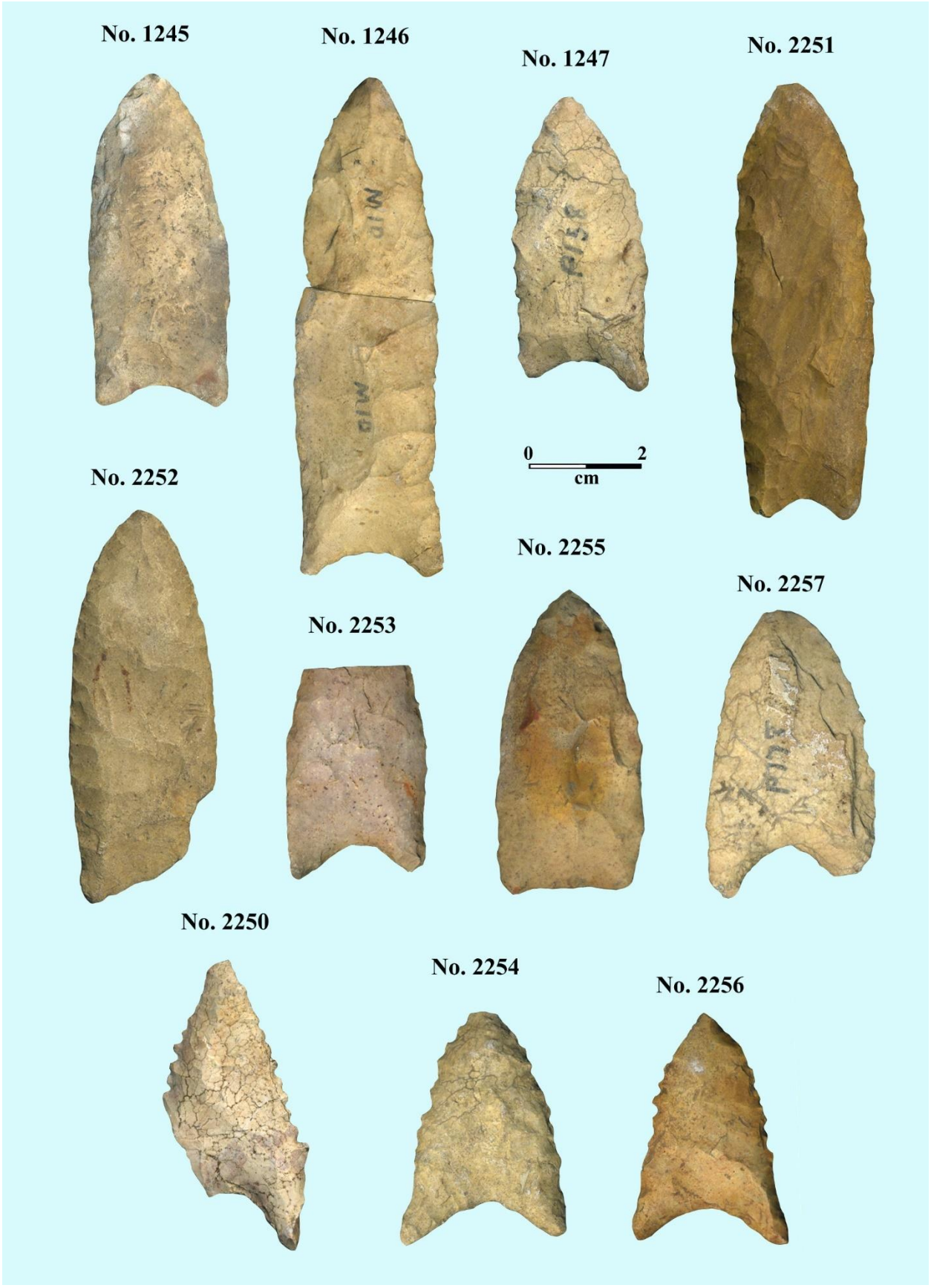
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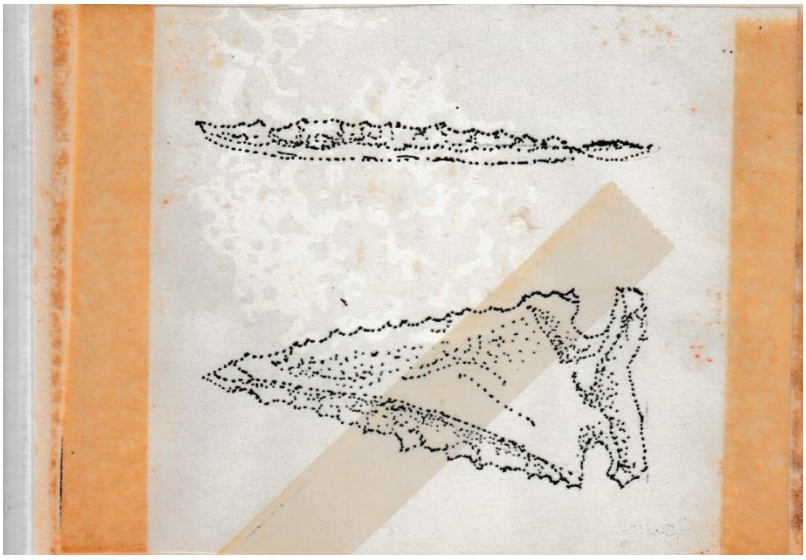

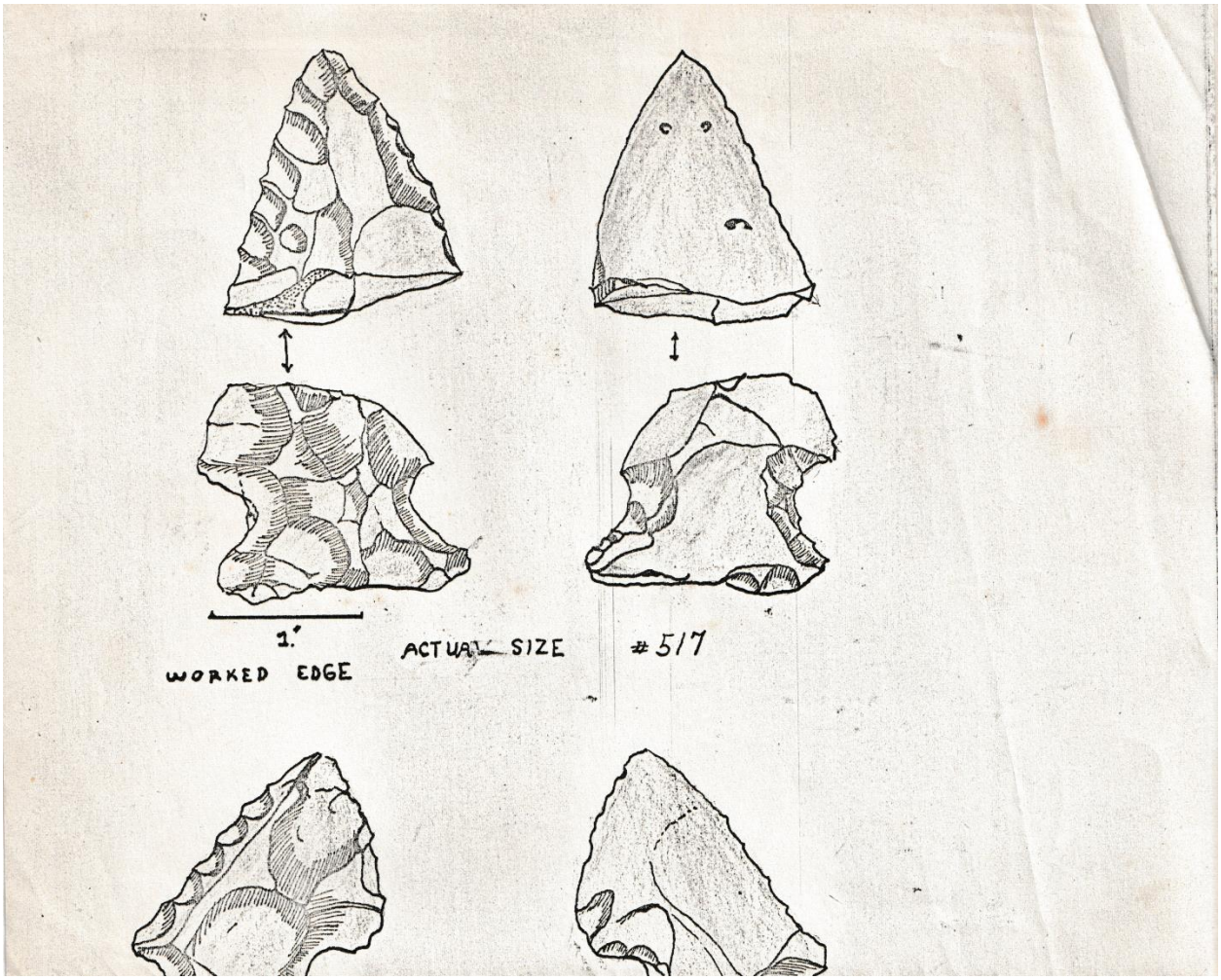
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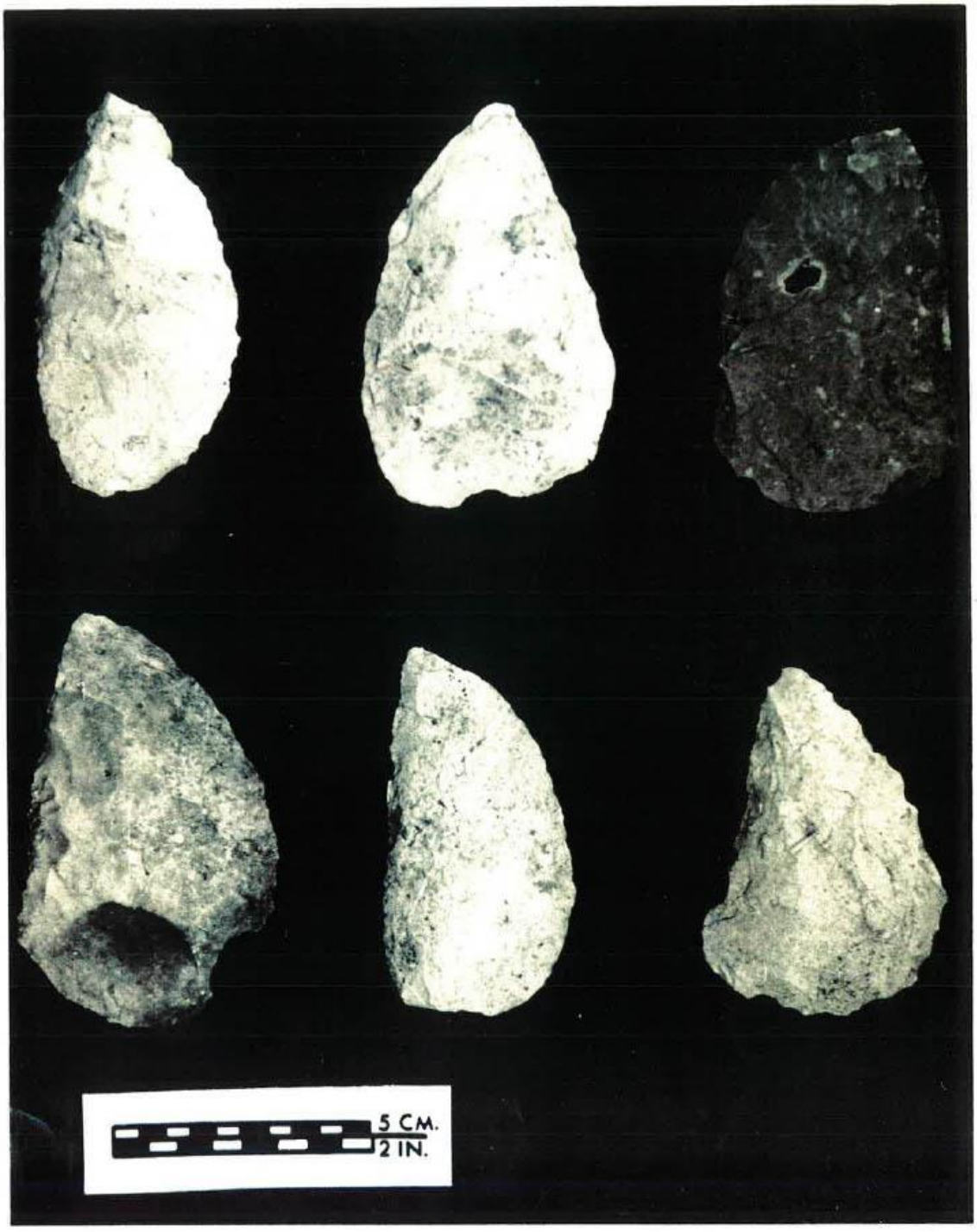
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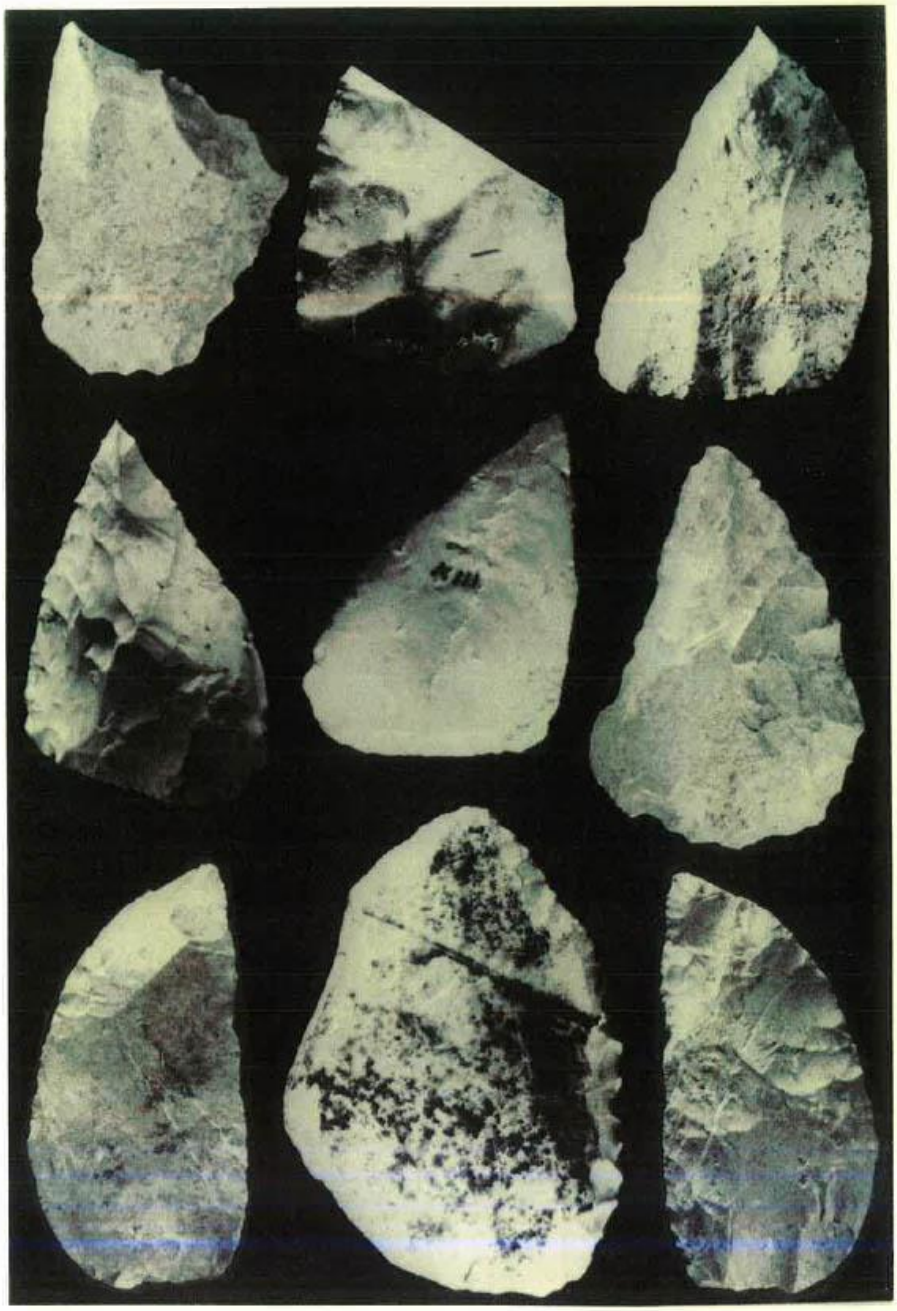

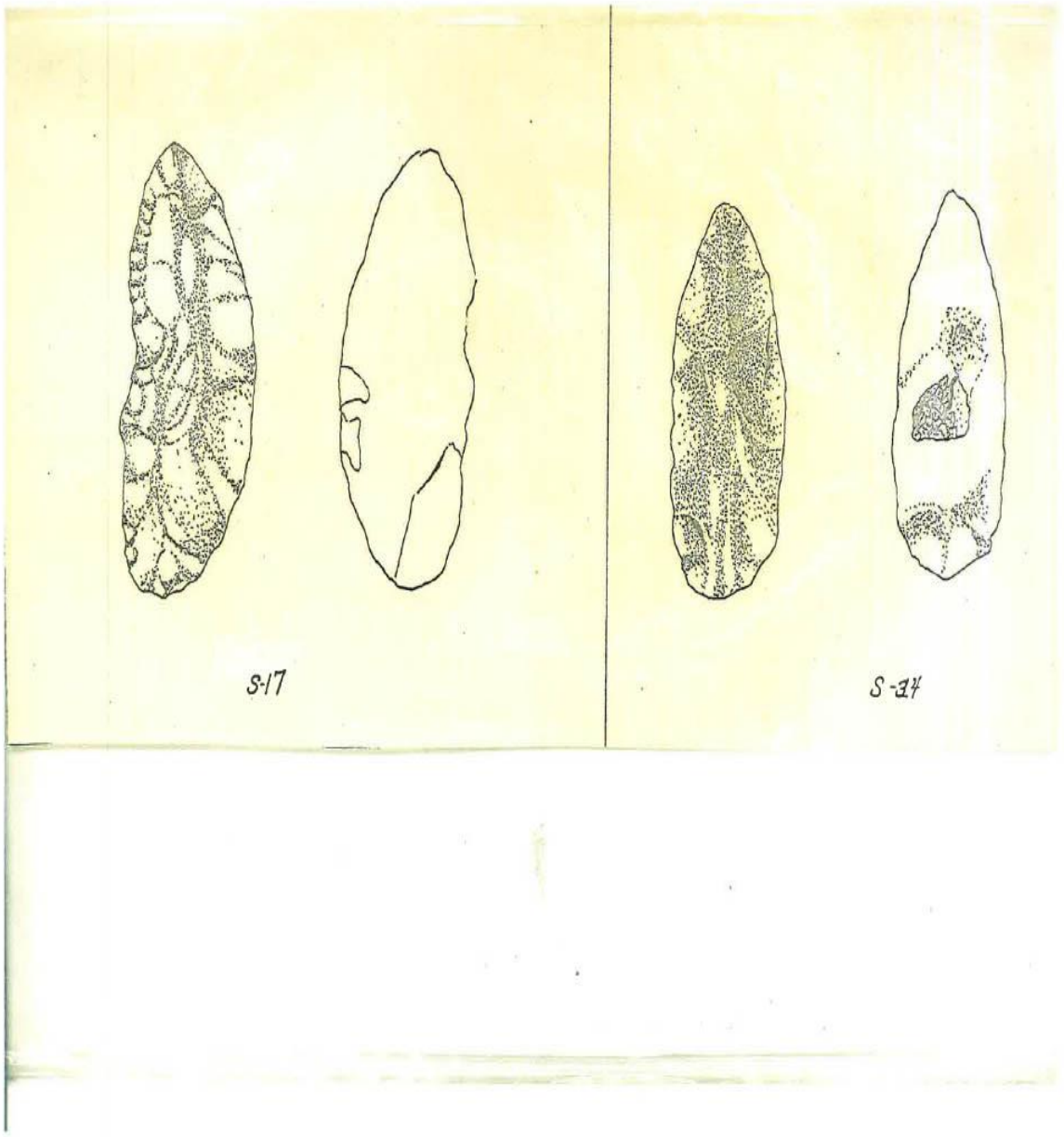
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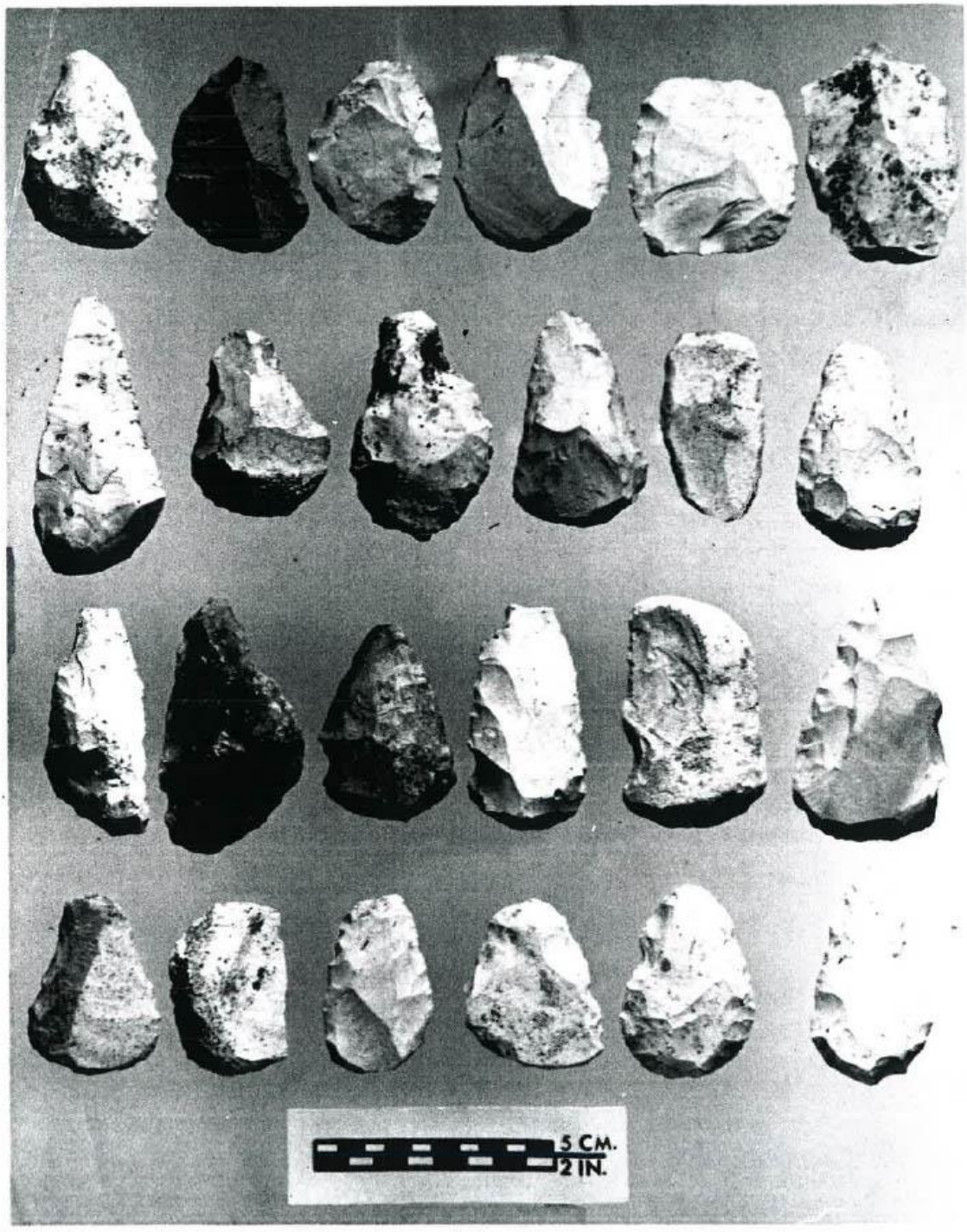

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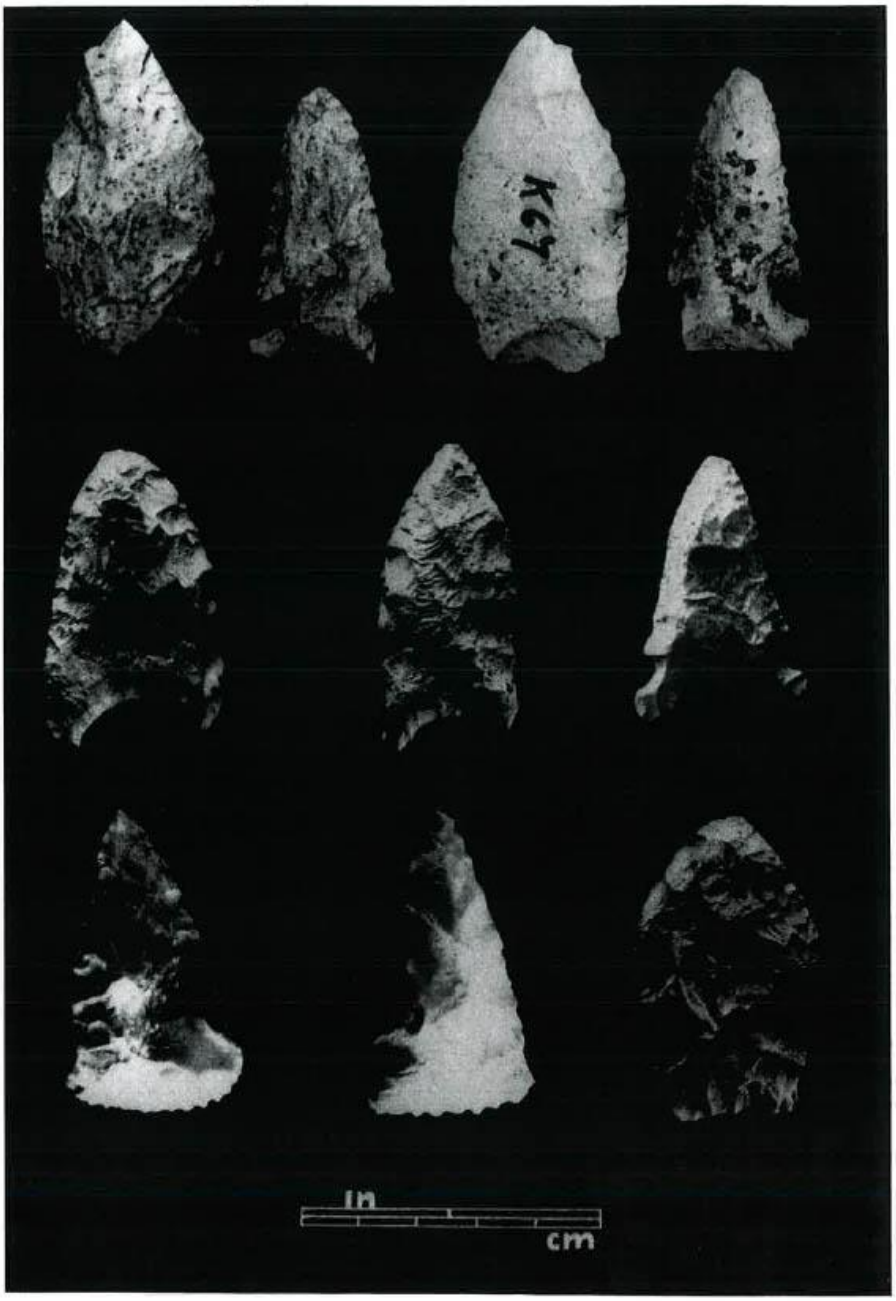
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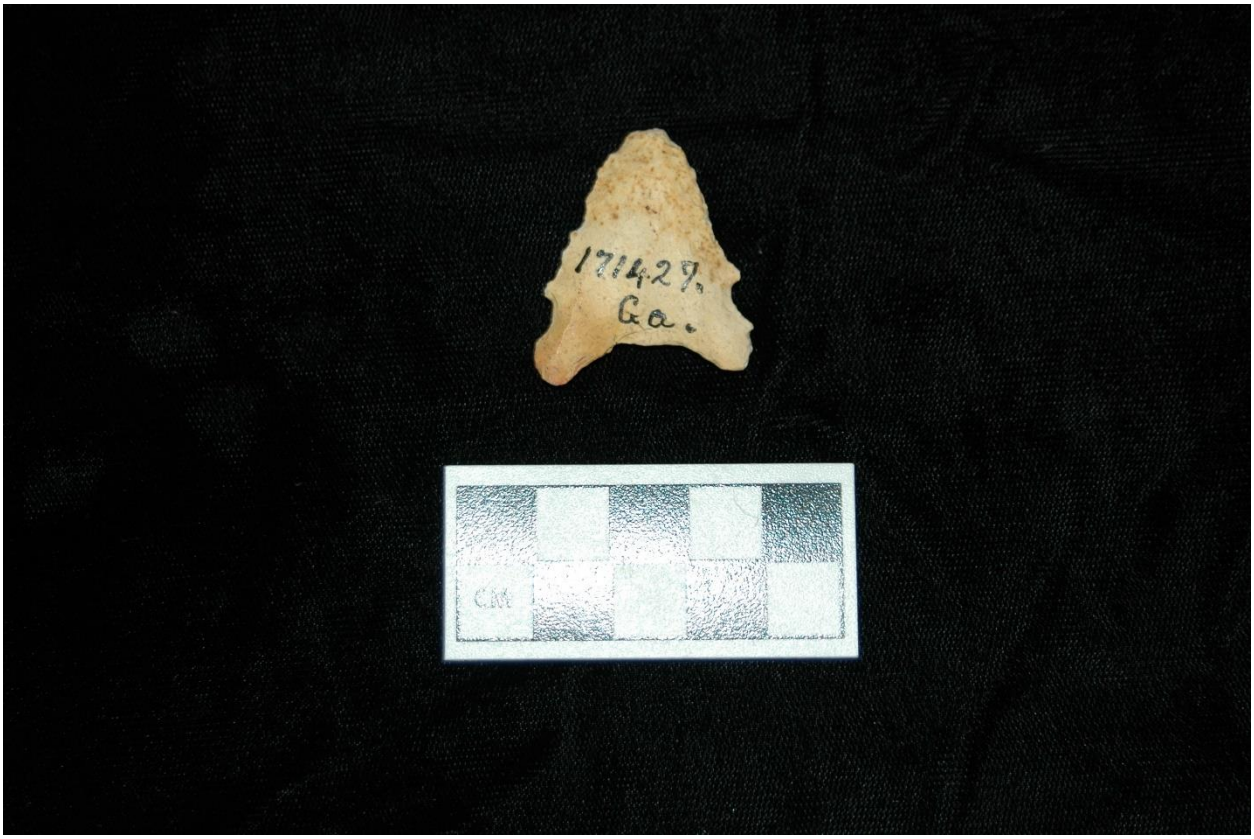
Appendix B Representative sample of artifacts from the Roland Steiner/Davis Plantation Collection

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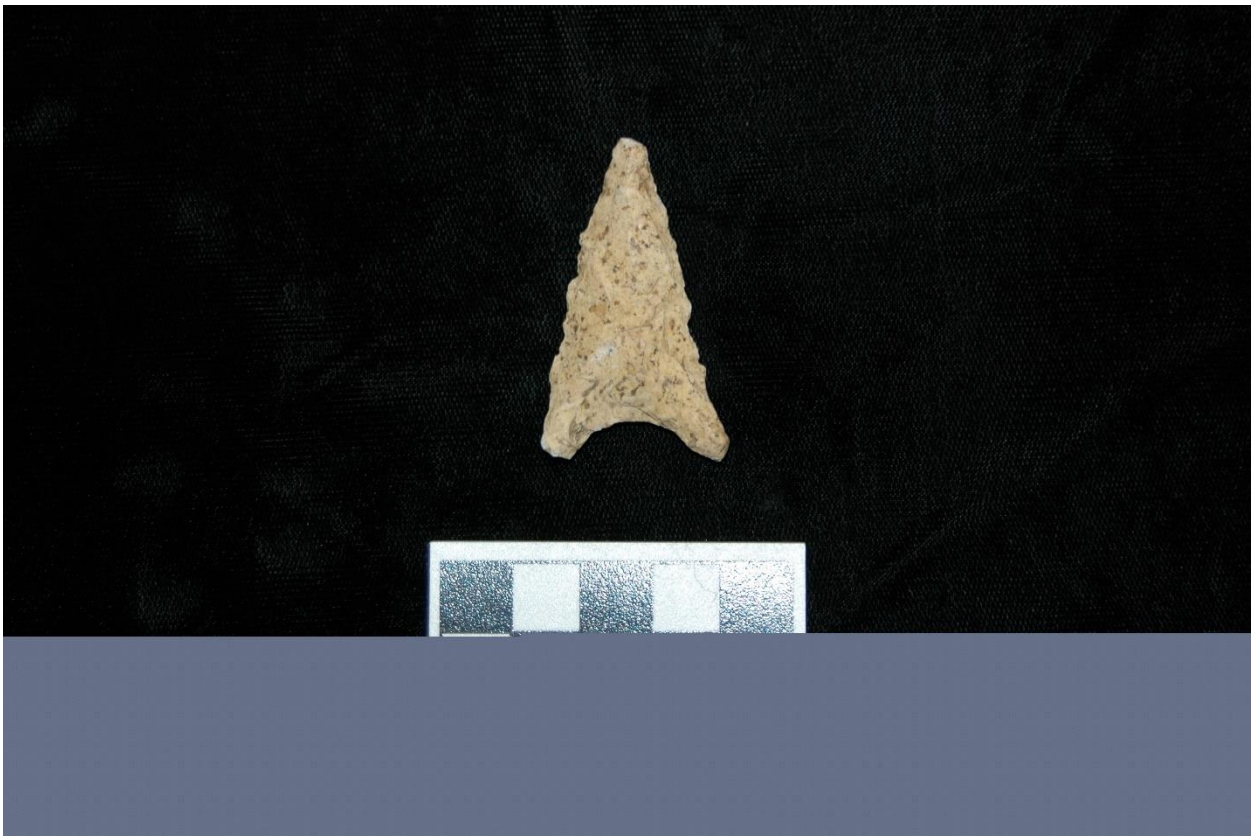


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